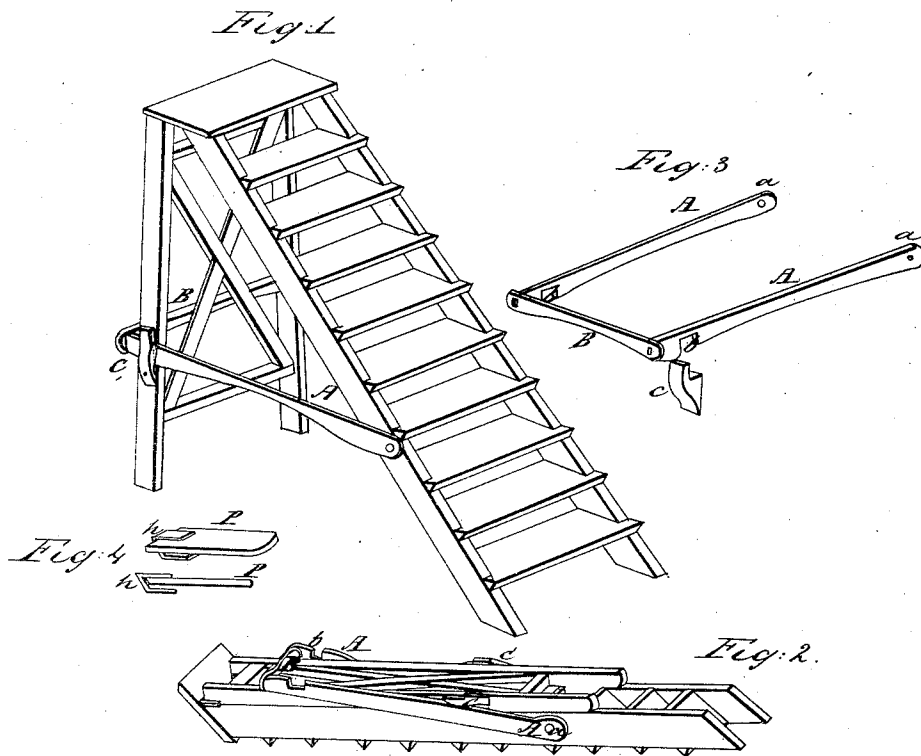


W. W. Berntheisel.

Step Ladder.

N<sup>o</sup> 67,710.

Patented Aug. 13, 1867.



Witnesses.

William Roberts  
John M. Grider

Inventor

William W. Berntheisel

# United States Patent Office.

WILLIAM W. BERNTHEISEL, OF WEST HEMPFIELD TOWNSHIP, PENNSYLVANIA.

*Letters Patent No. 67,710, dated August 13, 1867.*

## IMPROVED STEP-LADDER.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM W. BERNTHEISEL, of West Hempfield township, in the county of Lancaster, in the State of Pennsylvania, have invented a new and useful Improvement on Step-Ladders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a step-ladder with my improvement in place.

Figure 2, the same folded together.

Figure 3 shows my improvement detached.

Figure 4, the bucket-holder with its hook detached.

The nature of my invention consists in the notched side braces framed together so as to give greater firmness to the steps by being not only braced on the sides but also across the supporting-legs by connecting firmly the rear cross-piece with the side pieces working on a pivot-bolt, and so as to fold up closely and mechanically without drawing out pins or hooks; also facilitating the spreading and closing of the same. I also provide a loose platform with a hook to fasten upon the steps for holding a bucket of water, whitewash, or the like.

The drawings so clearly show the construction of the step and the improvement that a few words of explanation will enable any one skilled in the business to make and use my invention.

The steps and hinged supports framed together with cross-braces are not new, nor are side braces fixed by a pivot on the steps, and hooked into a staple or otherwise secured to the upright supports. Independent back braces may also have been used. I do not claim any such braces as shown in patents 34,100, 39,726, 42,565, 44,391, &c., all contrived with a view of improvement with the several combinations claimed for each. My improvement consists in attaching my side braces A, fig. 3, by a pivot-bolt, *a*, to the sides of the steps, as shown in fig. 1, uniting the rear ends by a cross-frame, B. I also affix a catch, *c*, on the outsides of the supports, so that the notch *b* cut out of the jointed and pivoted side braces A, locks into said catch *c* from above and firmly braces the steps and supports in every direction, as a unit, or one combined triple brace. The uprights being framed and hinged in the ordinary most approved manner, as shown, fold up against the step, while the combined brace A B A mechanically unlocks, and allows the supports to come in close contact with the step, while the framed cross-piece B ties them together and confines all the parts without disconnecting any portion at any point. For setting the same up it is only necessary to draw out the supports; the braces A B A will drop into their catch by their own gravity, or, as they necessarily must, being actuated by the folding up or spreading apart of the steps and supports. This step being in other respects equal to the best is improved by this simple device, which not only braces all the parts but facilitates the folding up and spreading out. I also show a movable board or platform, P, with a broad clasp-hook, *h*, fig. 4. This, I am aware, is a very simple means for supporting a bucket, and raising it from one step to the other by hooking it, the board P, over the step so as to project forward to give room for a vessel to hold water, paint, or whitewash. I am not aware that it has ever been introduced or known prior to my application of the same for such a purpose, simple as it is.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the side braces A A with their pivot *a* and notch *b*, when united with a cross-brace B, in combination with the catch *c* and hinged supports of the step, all combined in the manner shown and described.

In combination with the combined braces A B A and steps, I also claim the platform P with its clasp-hook *h*, made in the manner and for the purpose shown and specified.

WILLIAM W. BERNTHEISEL.

Witnesses:

WILLIAM ROBERTS,  
JOHN M. GRIDER.