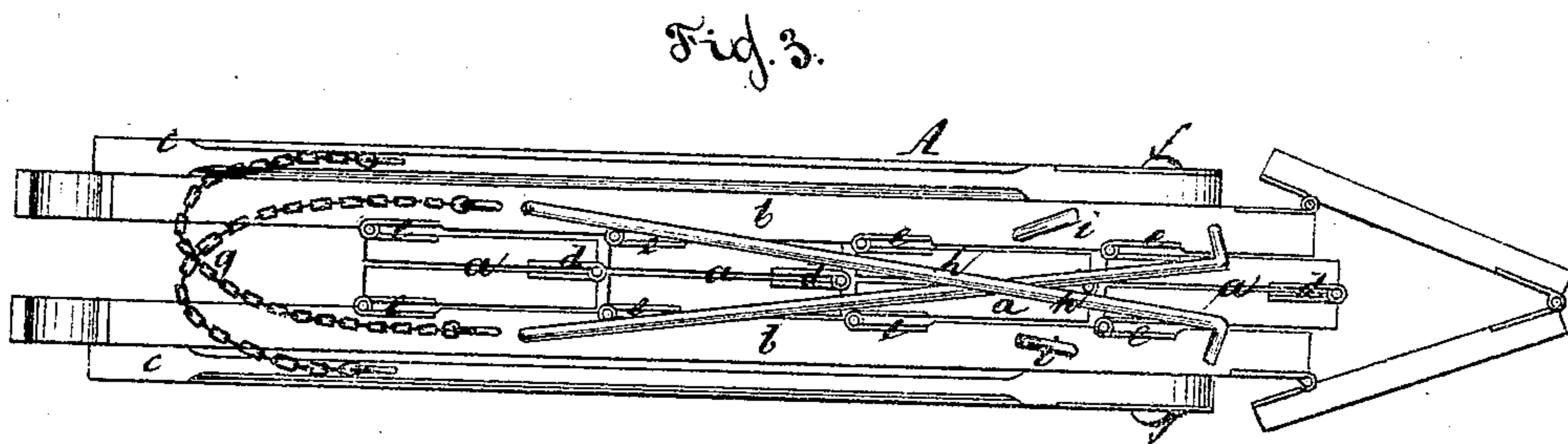
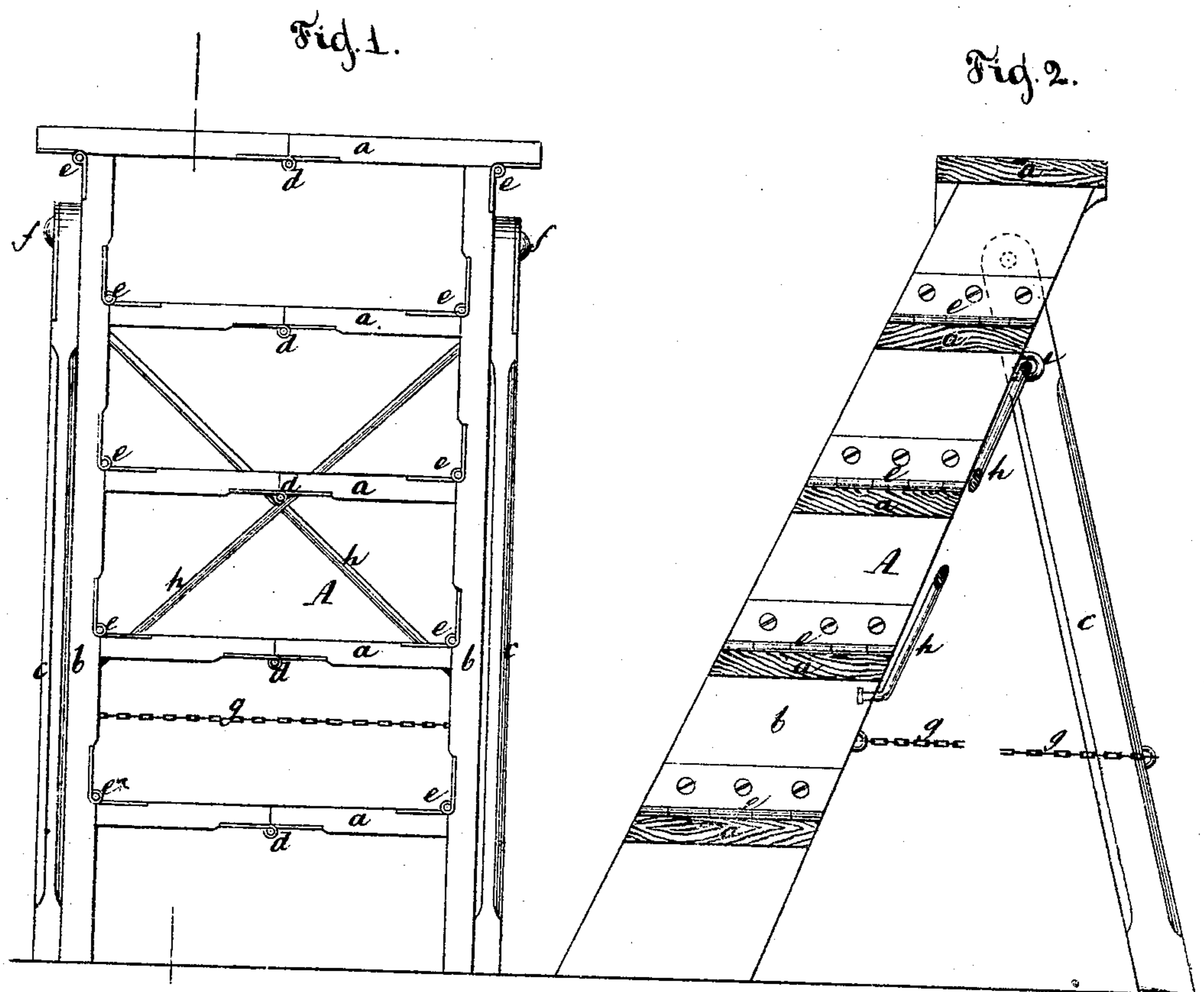


M. MATTERN.  
Improvement in Folding Step-Ladders.  
No. 130,929. Patented Aug. 27, 1872.



Witnesses.  
Ernst Bilhuber.  
C. G. Kastenhuber

Inventor.  
Madsen & Mattern  
By  
Van Dextford & Clark  
Attorneys

# UNITED STATES PATENT OFFICE.

MADISON MATTERN, OF POUGHKEEPSIE, NEW YORK.

## IMPROVEMENT IN FOLDING STEP-LADDERS.

Specification forming part of Letters Patent No. **130,929**, dated August 27, 1872; antedated August 26, 1872.

*To all whom it may concern:*

Be it known that I, MADISON MATTERN, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and Improved Folding Step-Ladder; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a front view of my ladder when the same is unfolded ready for use. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a rear view of the same when folded.

Similar letters indicate corresponding parts.

This invention relates to a step-ladder the steps of which are made each in two sections, which are connected to each other and to the side pieces of the ladder, by means of hinge-joints, in such a manner that when the ladder is not to be used it can be folded up in a comparatively small compass, and when folded said ladder can be easily carried from place to place. With the folding steps and braces of my ladder are combined guy-chains and retaining-hooks, such hooks being hinged to the sides of the ladder and made to cross, so as to prevent the steps from getting out of position when the ladder is in use.

In the drawing, the letter A designates my step-ladder, which is composed of the steps *a a a*, side pieces *b b*, and braces *c c*. The steps of my ladder are made each in two sections, which are connected to each other in the middle by hinge-joints *d*, and the ends of

which are attached to the side pieces *b b* by hinge-joints *e*. By these means a ladder is obtained which, when it is to be used, can be unfolded to the position shown in Fig. 1, and which, when it is to be put away, can be folded up, as shown in Fig. 3. The braces *c c* are connected to the side pieces *b b* by pivots *f*, and they are prevented from spreading out beyond the desired position by guy chains or ropes *g*. To the rear edges of the side pieces *b b* are hinged hooks *h h*, which, when the ladder is put up for use, are made to cross each other and to catch each in a loop, *i*, secured in the opposite side piece, so that by said hooks the steps are effectually prevented from folding up, or from being thrown out of the desired position, while the ladder is being used, and particularly if the ladder in its unfolded state is to be moved about.

By these means a step-ladder is obtained which is perfectly safe while being used, and which, when not used, can be folded up so that it can be conveniently carried about or put away in a comparatively small compass.

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

1. A step-ladder provided with folding steps *a a a*, substantially in the manner herein shown and described.

2. In combination with the folding steps, I also claim the safety-hooks *h h*, extending from one side piece of the ladder to the other, substantially as set forth.

MADISON MATTERN.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.