

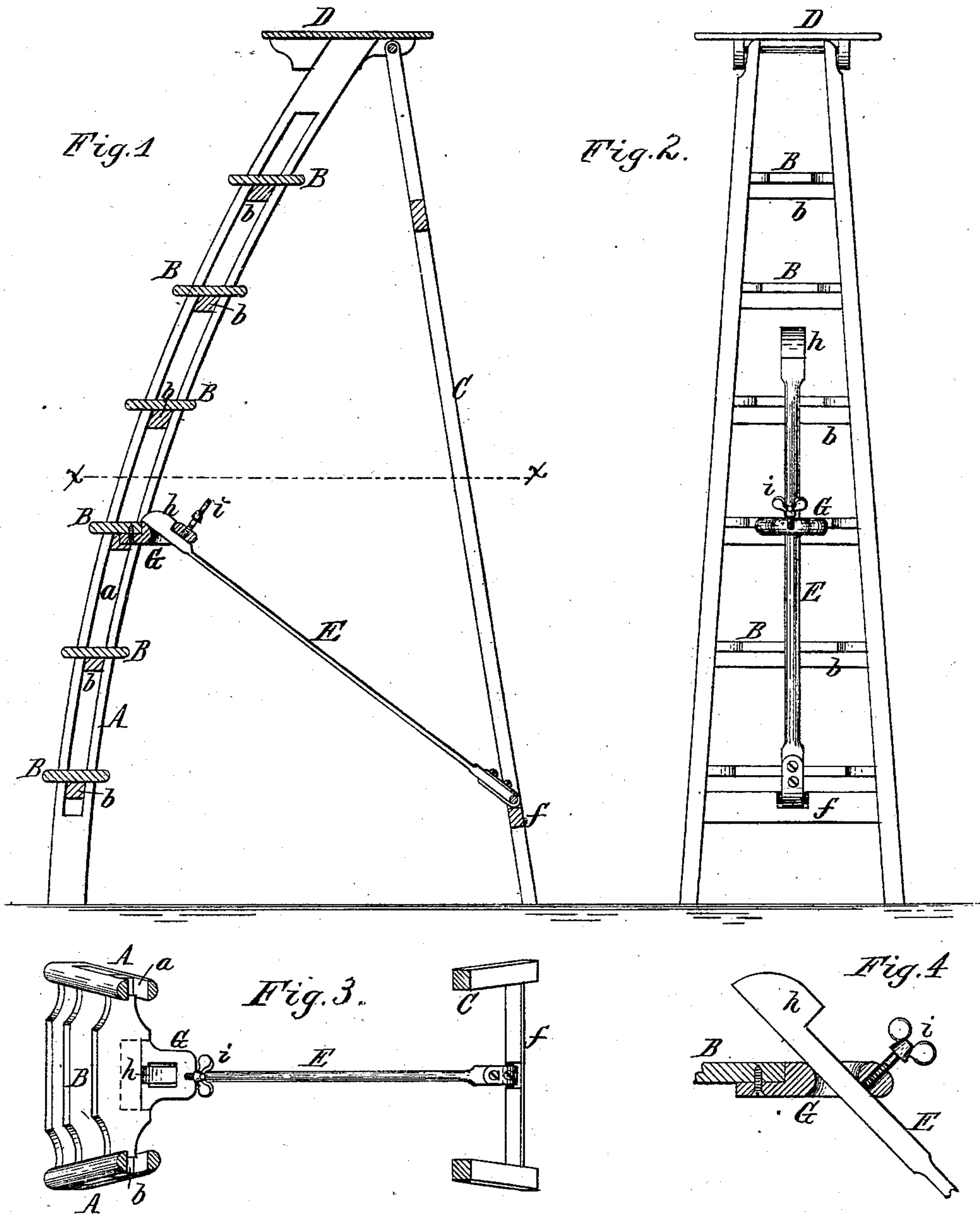
(No Model.)

O. M. SWEET.

STEP LADDER.

No. 273,188.

Patented Feb. 27, 1883.



Edw. J. Brady.  
Theo. L. Popp.

Witnesses.

O. M. Sweet, Inventor.  
By Wilhelm Bonner.  
Attorneys.

# UNITED STATES PATENT OFFICE.

ORANGE M. SWEET, OF FORESTVILLE, NEW YORK.

## STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 273,188, dated February 27, 1883.

Application filed April 25, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ORANGE M. SWEET, of Forestville, in the county of Chautauqua and State of New York, have invented a new and useful Improvement in Step-Ladders, of which the following is a specification.

The object of this invention is to produce a light, strong, and simple step-ladder which can be readily adjusted to stand at different inclinations; and my invention consists of the peculiar construction of the body of the ladder, as will be hereinafter fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a vertical section of my improved step-ladder set up for use. Fig. 2 is a rear elevation, showing the ladder folded up. Fig. 3 is a horizontal section in line *xx*, Fig. 1. Fig. 4 is a partly-sectional view, on an enlarged scale, of the means whereby the end of the brace is adjustably attached to the body of the ladder.

Like letters of reference refer to like parts in the several figures.

A A represent the side pieces of the body of the ladder, each composed of a single piece of wood of suitable size, and each provided with a longitudinal slot, *a*, which is formed by sawing a strip out of each side piece.

B represents the steps, arranged between the side pieces, A, and secured to the upper sides of cross-pieces *b*, which project into the slots *a* of the side pieces, and are secured therein by nails driven through the side pieces and the ends of the cross-pieces. The cross-pieces connect and brace the side pieces, and at the same time support the steps, thereby forming a very strong and light step-frame.

C represents the standard, which is hinged with its upper end to the top piece, D, of the ladder, and E is the brace which connects the lower part of the standard with the body of the ladder. The brace E is hinged with its lower end to a cross-piece, *f*, of the standard, and passes with its opposite end through a perforated plate or sleeve, G, which is secured

to one of the steps B and projects rearwardly therefrom. The end of the brace is provided, above the sleeve or plate G, with an enlargement or shoulder, *h*, which prevents the end of the brace from being drawn downwardly through the opening of the plate G, so as to disconnect the brace from said plate.

*i* is a set-screw which works in a screw-threaded opening in the rear portion of the sleeve or plate G, and which bears upon the brace. Upon loosening the set-screw *i* the brace can be moved in the opening of the plate or sleeve G to adjust the inclination of the standard, or to fold up the ladder, and by tightening the set-screw the brace is secured in the desired position. The shoulder *h* at the end of the brace prevents the latter from becoming disconnected from the body of the ladder if the set-screw should become loose, thereby preventing the standard from swinging farther from the body than is proper or safe. The plate G is preferably constructed of malleable or other suitable metal.

I am aware that it is not new to construct the side pieces of the step-frame with longitudinal slots, and the steps with tenons fitting in these slots and against the edges of the side pieces, to which they are secured by rivets; and I am aware that it is not new to construct the outer sides of the side pieces of the step-frame of the step-ladder and the under sides of the steps with grooves in which battens are placed to give strength to the ladder, and this I do not claim; but

I claim as my invention—

In a step-ladder, a body composed of side pieces, A, constructed with longitudinal slots *a*, cross-pieces *b*, secured with their ends in the slots of the side pieces, A, and steps B, secured to the upper sides of the cross-pieces *b*, substantially as set forth.

ORANGE M. SWEET.

Witnesses:

LEVI J. PIERCE,  
E. H. WIGGINS.