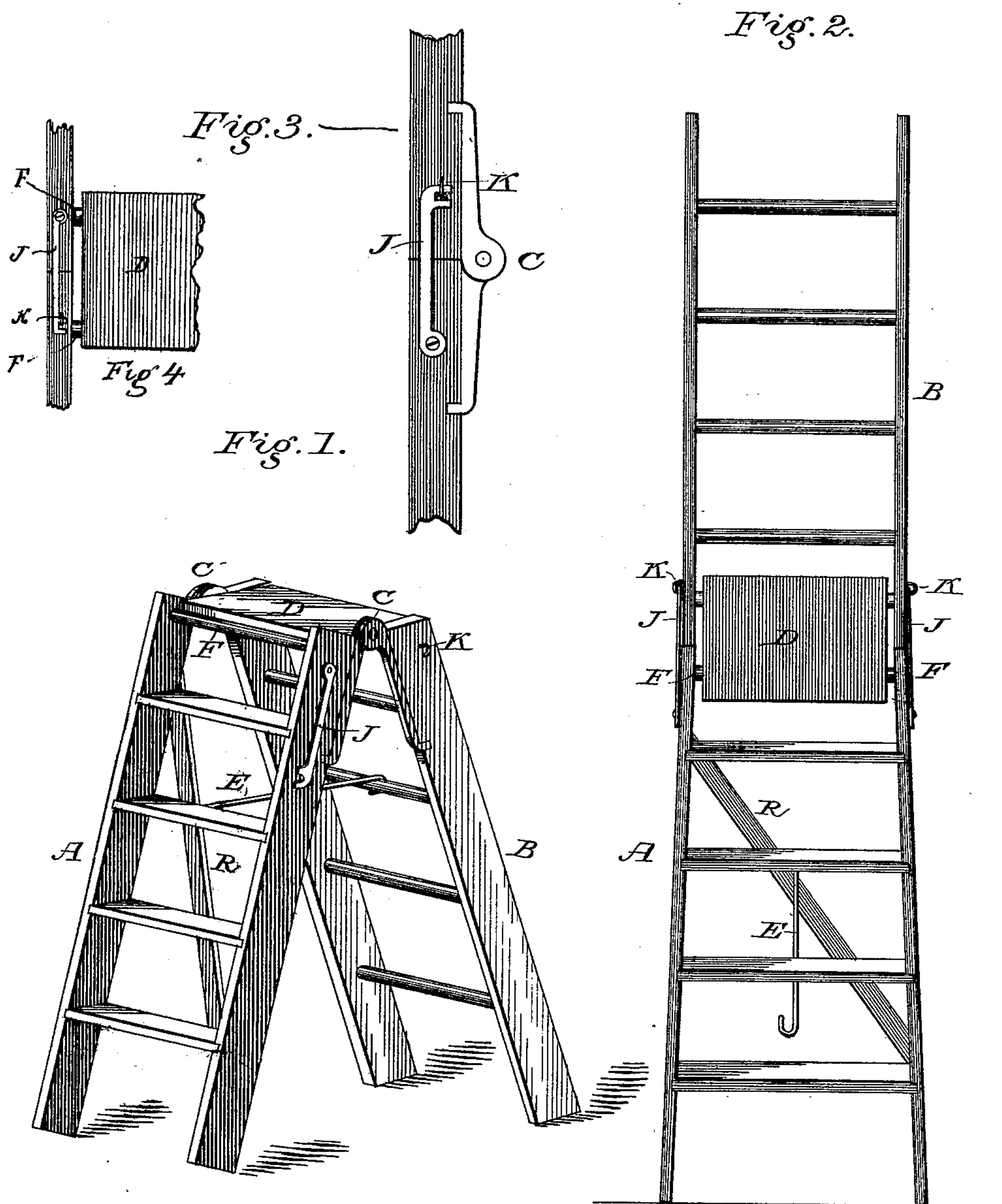


H. E. PHELPS.  
Extension Step Ladder.

No. 229,552.

Patented July 6, 1880.



Witnesses:  
Otto Lee Johnson  
Geo A Johnson

Inventor:  
Henry E Phelps.  
Jas. C. A. Snowd  
att.

# UNITED STATES PATENT OFFICE.

HENRY E. PHELPS, OF MARSHALL, MICHIGAN.

## EXTENSION STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 229,552, dated July 6, 1880.

Application filed July 22, 1878.

*To all whom it may concern:*

Be it known that I, HENRY E. PHELPS, of Marshall, in the county of Calhoun and State of Michigan, have invented certain new and  
5 useful Improvements in Extension Fruit and Step Ladders; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make  
10 and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to a combined step or  
15 fruit ladder so hinged in the center that it can be readily converted into an extension-ladder, as will be hereinafter more fully explained.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a view showing the ladder extended. Figs. 3 and 4 are  
20 views showing the fastening of the joints.

Similar letters of reference indicate like parts in the several figures.

My improved ladder is divided into two  
25 equal sections, A and B, and fastened together by two malleable hinges. Section A, I usually make tapering—that is, wider at the base—and with flat steps for greater convenience when my invention is used as a step-ladder.  
30 Said section is properly braced by one or more cross-pieces, R. Section B is furnished with rounds. The hinges C C are cast with turned-up ends let into and either screwed or bolted to the sections A and B, as shown in Figs. 1  
35 and 3.

D is a platform, hinged in any suitable manner to section B, so as to rest on a round, F, placed at the upper end of section A.

E is a hook, fastening the two sections of  
40 the step or fruit ladder together to keep them

from spreading when in use; and J J are hooks engaging pins or staples K K, for holding the ladder extended, as shown in Fig. 2. The hinges C are fastened on the under  
45 side of the ladder, and by means of the bent-up ends entering or holding in mortises or gains in the sections are adequate to sustain the strain which necessarily comes upon the hinge when the sections abut end to end, as shown, the hooks J being merely used to  
50 keep the ladder extended while it is being shifted from one position to another.

My invention being invaluable for fruit-picking, tree-trimming, cleaning of large windows, &c., it can as handily be used for any purposes  
55 for which any ordinary ladder may be.

My invention placed beside a fruit-tree, two pickers can stand upon opposite sides of the ladder and gather the fruit handily and easily, untrammelled by a basket or a pail, which may  
60 rest upon the platform.

I am aware that ladders hinged in two sections, with their ends abutting and held by a fastening device, are not new, and such I do  
65 not claim, broadly; but

What I do claim is—

In a folding ladder whose sections abut end to end, the combination, with said sections, of hinges C, applied thereto, as shown, and having bent-up ends entering and holding in  
70 mortises or gains in the said sections, all as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY E. PHELPS.

Witnesses:

OTTO LEE JOHNSON,  
GEO. A. JOHNSON.