

(No Model.)

O. K. WOOD.  
SECTIONAL LADDER.

No. 317,913.

Patented May 12, 1885.

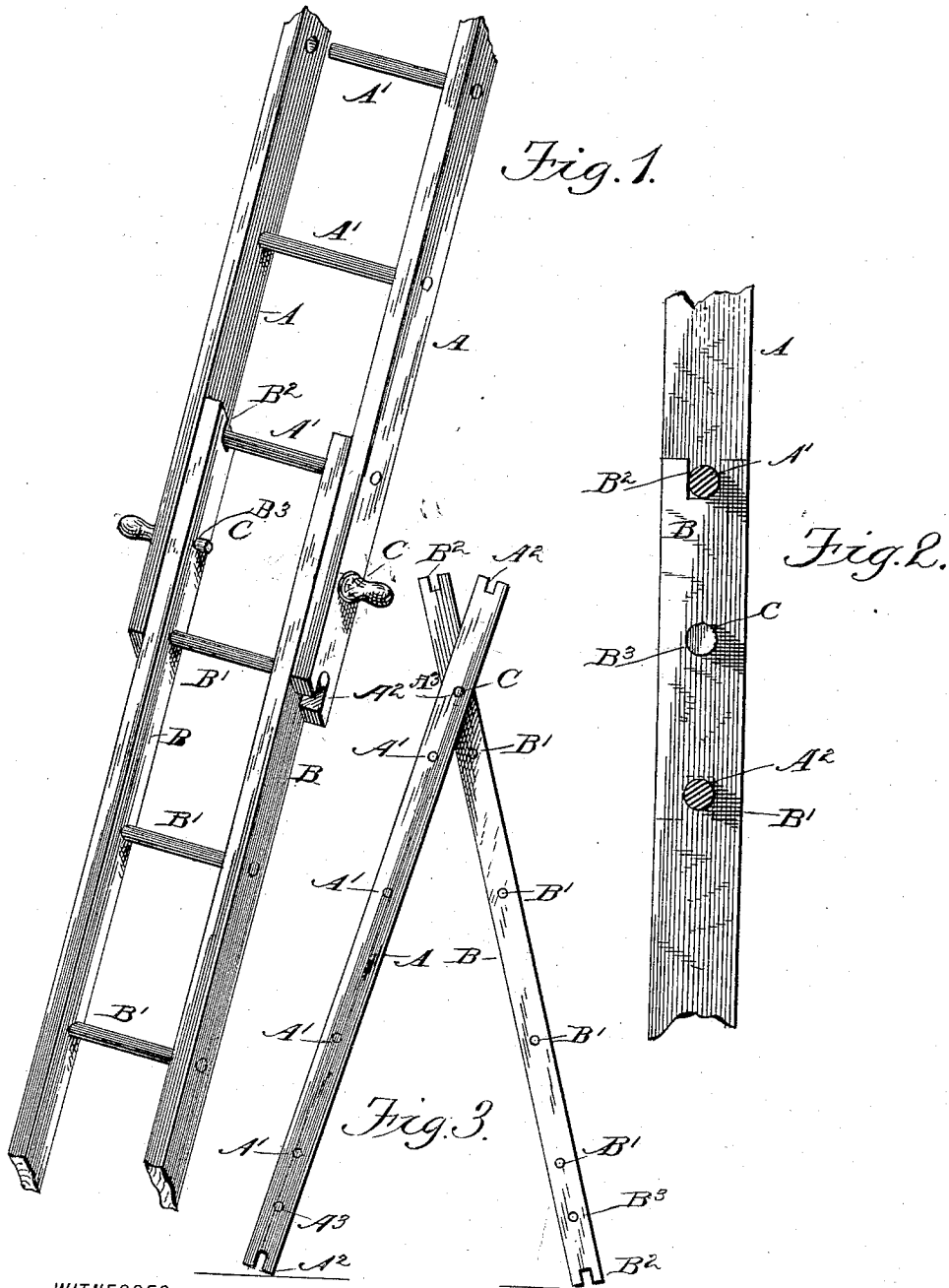


Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES

*Wm S. Durall*  
*J. L. Fracker*

INVENTOR

*O. K. Wood*  
by *E. Stoeckling*  
Attorney

# UNITED STATES PATENT OFFICE.

ORVILLE K. WOOD, OF WEST CHAZY, NEW YORK.

## SECTIONAL LADDER.

SPECIFICATION forming part of Letters Patent No. 317,913, dated May 12, 1885.

Application filed March 14, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, ORVILLE K. WOOD, a citizen of the United States, residing at West Chazy, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Sectional Ladders, of which the following is a specification, reference being had to the accompanying drawings.

This invention is an improvement on that for which Letters Patent were granted me October 14, 1884, numbered 306,454; and the invention consists in certain features of construction hereinafter described, and specifically set forth in the claim.

Referring to the drawings, Figure 1 is a perspective, Fig. 2 a central vertical section, and Fig. 3 a detail, of a sectional ladder embodying my invention.

Like letters indicate like parts in all the figures.

A A represent the side rails, and A' A' the rungs, of one section of a ladder, and B B the side rails, and B' the rungs, of a companion section. The side rails of each section are each notched at both of its ends—that is to say, the upper and lower ends of the rails A are notched, as at A<sup>2</sup>, and the rails B are notched, as at B<sup>2</sup>, and each of said rails is provided with holes A<sup>3</sup> and B<sup>3</sup>, respectively, (see Fig. 3,) which are arranged midway between its ends and the rung nearest thereto.

C represents a short pin, which is inserted into the holes A<sup>3</sup> B<sup>3</sup> in the rails A and B when the sections are arranged one upon another, as shown in Figs. 1 and 2—that is to say, the rung A' of the section A rests in the notches B<sup>2</sup> of the section B, and the rung B' of the section B rests in the notches A<sup>2</sup> of the section A, said rung being projected beyond the side rails B for that purpose. When in that position the holes A<sup>3</sup> B<sup>3</sup> through each of the side rails register with each other, so that a short pin can readily be inserted therein and serve to lock the parts together.

Heretofore in ladders of this class the side rails of each were inclined toward each other at the top, said side rails having been provided with a removable rung or pin extended completely across the ladder, so that at the end of each section said removable rung or pin extended completely across the ladder, and by reason of its location midway between the rungs it, in effect, amounted to a half-

step, which, by carelessness of the user in ascending or descending, is liable to cause accidents, and which in the ascension and descension of the ladder by steps of regular intervals agreeing with the distance between the rungs often interferes with ease and safety in such use by reason of forming an obstruction to the toe or heel of the user. A further objection to the long pin or removable rung is that it is liable to warp, so that when introduced through the side rails at one side of a ladder it is difficult to pass it through holes in the opposite side rails. A slight warping of the side rails themselves would also prevent an easy introduction or removal of the long pin from the sections.

Like other ladders of this class, it is adapted to be transformed into short ladders for staging purposes, as illustrated in Fig. 3, in which case, instead of supporting the staging on a single long rung—that is, the removable rung heretofore employed—said staging will be supported upon the two uppermost rungs, A' B', of each section, respectively, thereby not only giving additional strength to the support of the flooring or staging, but also adding steadiness to the ladders, in that two rungs are in contact with the staging instead of a single one, and longitudinal falling of the staging is thereby prevented.

I do not broadly claim herein detachable ladder-sections provided with devices for securing the same in connected series; nor do I claim a yielding or spring-pressed pin, as the enlargement of one of the apertures or reduction of the pin to render a coiled spring available causes a less firm, safe, and secure connection of the sections; but

What I claim is—

The combination of the side rails A, notched as at A<sup>2</sup>, perforated, as at A<sup>3</sup>, and connected by rungs A', the side rails B, notched as at B<sup>2</sup>, perforated as at B<sup>3</sup>, and connected by rungs B', the said perforations B<sup>3</sup> A<sup>3</sup> being of uniform size and in line with each other, and the pins C, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

ORVILLE K. WOOD.

Witnesses:

WILLIAM S. DUVALL,  
E. B. STOCKING.