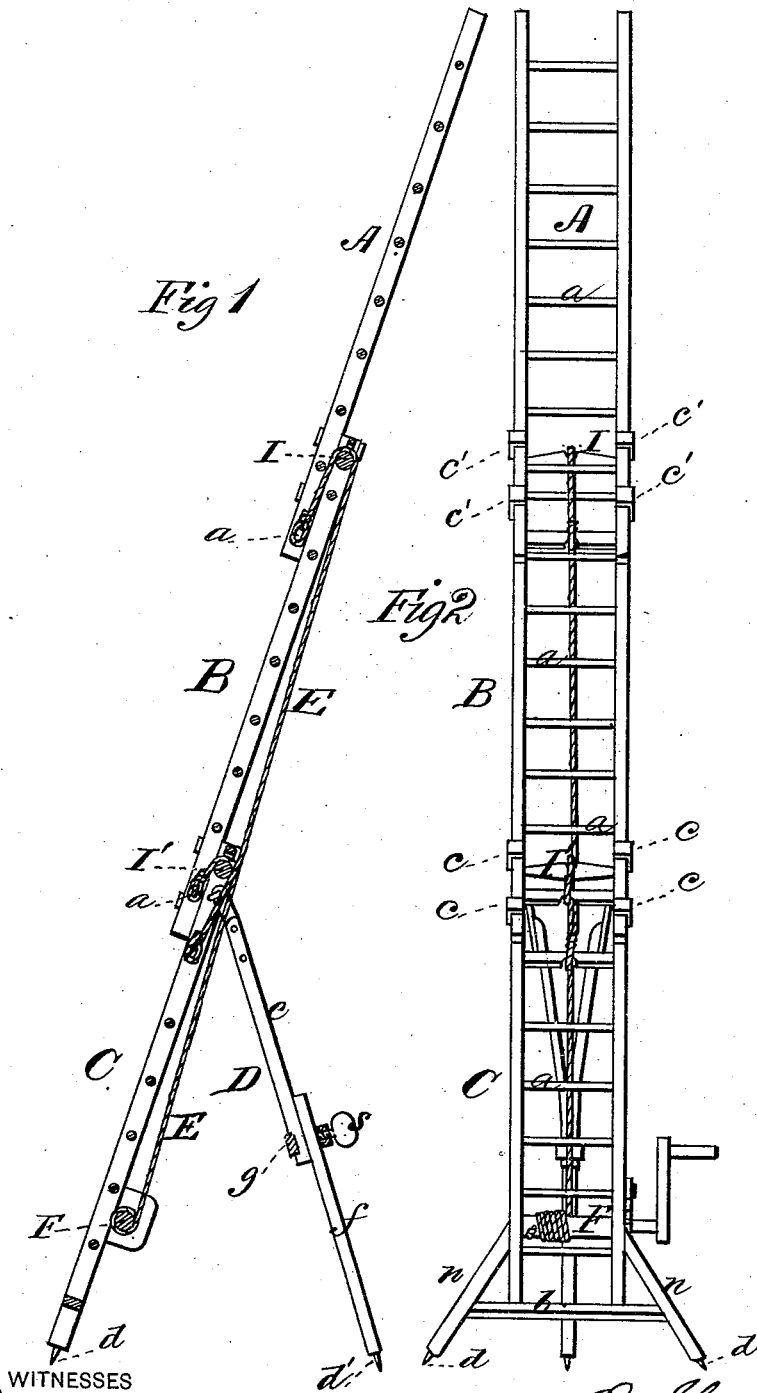


O. SHERWOOD, Jr.  
EXTENSION-LADDER.

No. 187,324.

Patented Feb. 13, 1877.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

OBADIAH SHERWOOD, JR., OF RICHFORD, VERMONT, ASSIGNOR OF THREE-FOURTHS OF HIS RIGHT TO GEORGE W. KENDALL, PHILIP HODDY, AND AUSTIN D. CABLE, OF MONTREAL, CANADA; SAID CABLE ASSIGNOR TO SAID SHERWOOD.

## IMPROVEMENT IN EXTENSION-LADDERS.

Specification forming part of Letters Patent No. 187,324, dated February 13, 1877; application filed June 26, 1875.

To all whom it may concern:

Be it known that I, OBADIAH SHERWOOD, Jr., of Richford, in the county of Franklin and State of Vermont, have invented a new and valuable Improvement in Extension-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, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical sectional view of my ladder, and Fig. 2 is a front view of the same.

This invention has relation to improvements in extension-ladders which are made up in two or more sections; and it consists in an improved construction of the lowermost section, for the purpose of affording the ladder, when extended, a firm and safe position on the ground, without danger of tipping over to either side, substantially as hereinafter more fully described.

In illustrating my invention I have elected to employ a ladder made up of three sections, (designated from top to bottom by the letters A B C.) These sections are provided with the usual rungs, *a*, and in small constructions are designed to be of wood; but I may sometimes make them of metal, or of metal and wood combined. They are also of equal width, and, when folded, lie snugly the one upon the other. Section C is provided, near its upper end, with two or more spaced iron clasps, *c*, which are rigidly secured in place, and are adapted to overlap the side rails of section B, thereby serving as guides to the latter, and preventing all manner of undue displacement. The upper end of section B is also provided with clasps *c'*, for a similar purpose, and of like construction. Ladder C, at its lower end, is mortised into a cross-brace, *b*, of two inclined uprights, *n*, the upper ends of which are rigidly secured to the side rails of the ladder, and their lower ends provided with spikes *d*, which, fastening upon the surface

of the ground, will hold the ladder against slipping, while the inclined uprights *n* will correct any tendency to lateral tilting. Its upper end is supported by means of a prop, D, which is pivoted, in any suitable manner, to one of the upper rungs of the ladder. This prop consists of two sections, *e* and *f*, united by means of a loop, *g*, and clamp-screw *s*, whereby the ladder may be inclined more or less from the perpendicular, as may be necessary, and it is provided with a spike, *d'*, upon its lower end, serving the same purpose as spikes *d*.

The several sections, A, B, and C, are hoisted or extended by means of a rope or cable, E, which passes over rollers II' down to a windlass, F, which has its bearings in the lower section C, the clamps or guides *c c'* keeping each section in its place during the operations of hoisting or lowering.

A great and serious objection to this class of extension-ladders, as heretofore constructed, has been, and is, that they are apt to slip or tilt over when placed on the ground; but this danger is entirely overcome by my improved construction of the lower section, which, while it affords a broad base for the ladder, at the same time admits of the ready adjustment of this to any desired angle by means of the bifurcated prop D, made in two sections, *e f*, and regulated by the clamp-screw *s*, as described.

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

The lower section C, mortised into a cross-brace, *b*, and provided with the spiked inclined braces *n*, in combination with the spiked bifurcated adjustable prop D, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

OBADIAH SHERWOOD, JR.

Witnesses:

EDWARD GOSS,  
I. G. POWELL.