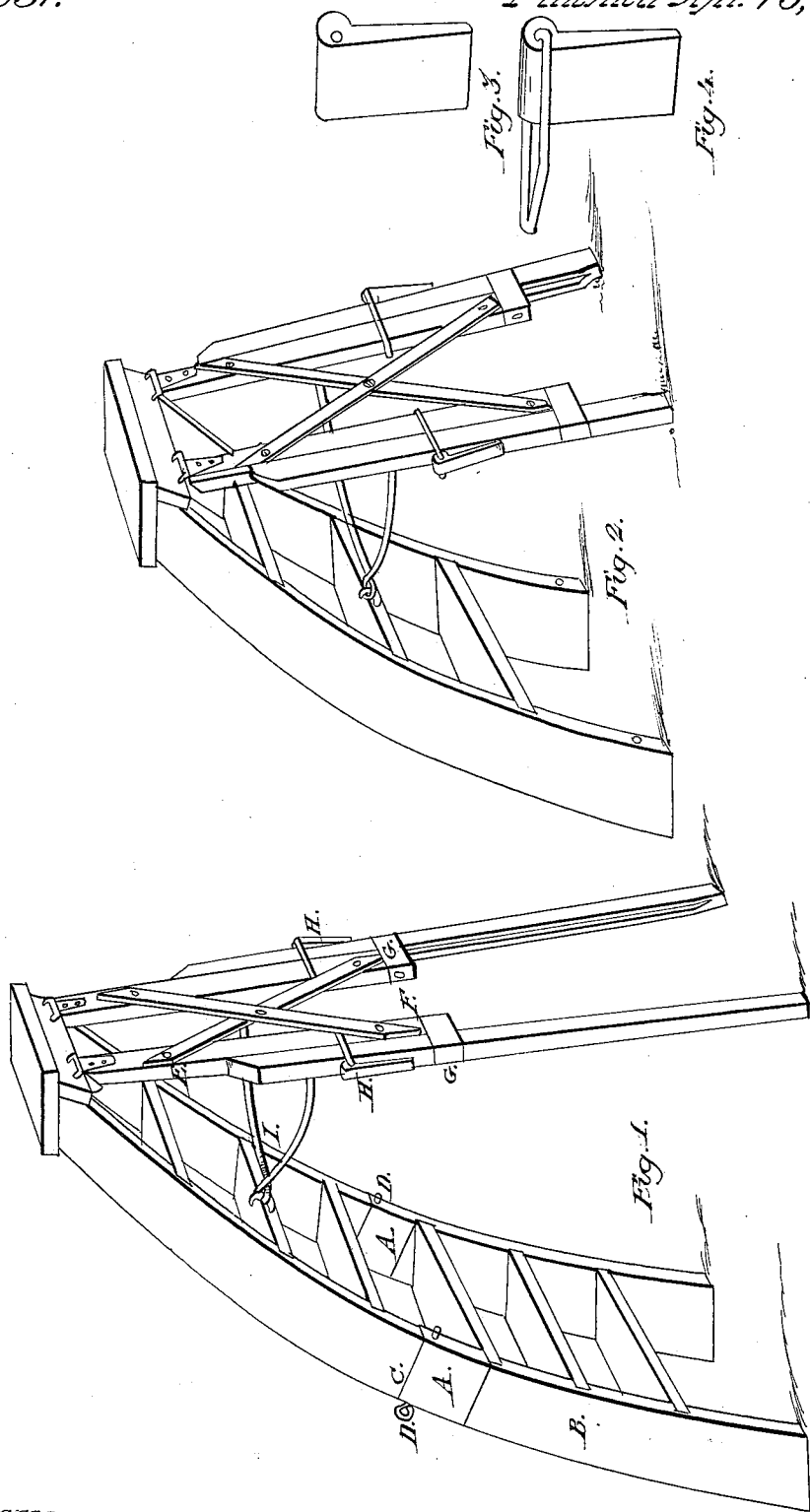


N^o 88,831.

E. R. Austin.
Step Ladder. Patented Apr. 13, 1869.



Witnesses:

Joseph Munson.
Cornelius B. Ganyer

Inventor:

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EDWIN R. AUSTIN, OF ELMIRA, NEW YORK.

Letters Patent No. 88,831, dated April 13, 1869.

IMPROVED STEP-LADDER

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWIN R. AUSTIN, of the town of Elmira, county of Chemung, and State of New York, have invented a new and useful Improvement in Step-Ladders; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in making a step-ladder in such a manner that it may be used as a short ladder, or a long one, as may be desired, and at the same time can be adjusted to sideling ground, for the purpose of picking fruit, or any other purpose which may be desired, and the steps at all times remain level, and face either to the upper or lower hill-side.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the front part, or the part composed of the steps and sides, in any of the known forms, making the sides in two lengths, connected together by a band of iron, which is fastened to the lower length by screws, as shown in Figure 1 at A.

This band is one-half its length on the lower part, marked B. The other half forms a socket, into which the upper part of the ladder is placed, as shown at C, and is held firmly together by a pin of iron, passing through, as shown at D, thus making a ladder which can be shortened or lengthened at pleasure.

I construct the legs which support the ladder (and are attached to it as in any of the common forms,) several inches shorter than would be needed on a level floor, or ground, for the short ladder, and provide the outer edge with a tongue, as shown at E.

I have a small band of iron, which is long enough to receive the width of two legs. It is fastened to the main leg at the bottom, by a screw, as shown at F.

Through this band passes a false leg, J, as shown at G, and is matched to fit the main leg.

The false leg is held to its place by an eccentric-lever, Figure 3, which hangs on a wire band of sufficient size, as shown at Figure 4.

When in its place, and loose, for the passage of the false leg, the lever is pointing upward, with the smallest side next to and outside of said leg, which can be moved up or down, sufficient to keep the steps always level on any ground.

By turning this lever downward, the larger part is thrown against the leg, thus firmly securing them together, as shown at H, fig. 1. The more weight that is put on the ladder, the tighter will this band become.

The main legs are cross-braced, but the false legs are not.

To secure the legs at a proper distance from the ladder, I use a wire of sufficient size, that is attached to the legs by staples, and runs to the centre of a step, where it forms a loop, and is dropped over a hook that is put in the edge of the step, as shown at I, fig. 1, thus connecting the legs and ladder firmly together, and bracing the legs from the centre of the ladder each way, and making it much firmer than by any manner heretofore used.

To make a short ladder, remove the pins from the bands A A, take off the lower part, and raise the levers H H, slip out the long false-legs, and put in the short ones, turn down the levers, and it is done, as shown at fig. 2.

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

A step-ladder, constructed with a detachable joint, B, and socket A, combined with extension-legs J J, and secured by the eccentrics H H, all constructed, arranged, and operating in the manner described, and for the purpose set forth.

EDWIN R. AUSTIN.

Witnesses:

JOSEPH MUNSON,
CORNELIUS B. HANYEN.