

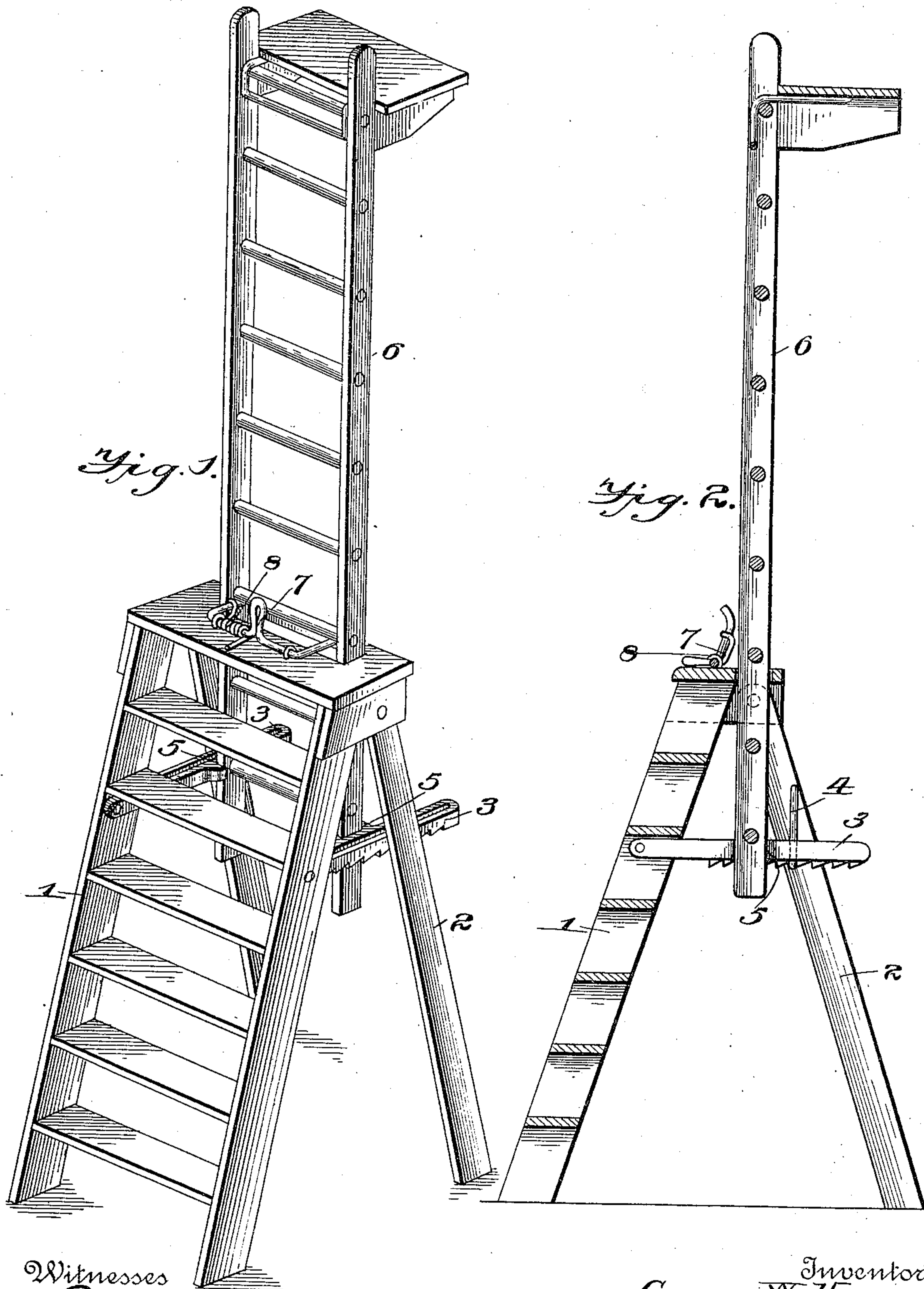
No. 610,487.

Patented Sept. 6, 1898.

G. W. HOOVER.
STEP LADDER.

(Application filed July 3, 1897.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE,

GEORGE W. HOOVER, OF BELLE PLAIN, IOWA.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 610,487, dated September 6, 1898.

Application filed July 3, 1897. Serial No. 643,366. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HOOVER, of Belle Plain, in the county of Benton and State of Iowa, have invented certain new and useful Improvements in Step-Ladders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to improvements in combined step and extension ladders.

The special object of my invention is to provide a step-ladder with an extension attachment for gathering fruit in orchards.

15 Obviously my invention is applicable to other uses and, indeed, to the ordinary uses for which ladders are required.

The invention consists, essentially, in the combination of a folding step-ladder part 20 having arms or reaches for holding the standards or supports at the desired angle with each other, the reaches being provided with notches or guideways for guiding an extension member, an extension-ladder projecting 25 through the step-ladder and guided by the notched reaches, and means for holding the extension-ladder in an elevated position.

In the drawings forming part of this specification, Figure 1 is a perspective showing my 30 invention adjusted in position. Fig. 2 is a vertical section through the combined ladders, showing one of the notched or serrated reaches in elevation and the extension part in position for being moved up or down, the 35 means for holding the extension being tilted to permit of the vertical movement of such extension.

1 is the step part of a step-ladder. 2 are the folding supports, adjustable to give a broad or 40 narrow base through the medium of notched reaches 3. The reaches are pivoted to the standards of steps 1 and are held within certain limits of movement with relation to the

standards 2 by means of loops or straps 4. The reaches 3 3 are each provided with shoulders or guideways 5 for holding an extension-ladder 6 in a rigidly-vertical position when the same is required for use. The upper step of the step part 1 has a slot or opening through it in line with and operating with the guide-notches in the reaches. Connected with the 50 upper step is a swinging fork-like part 7, pivoted, as shown, to the top step and held normally in horizontal position by means of a spring 8. The purpose of this part 7 is to furnish a stop or lug to hold the extension-ladder in adjusted position wherever the same may be desired and arranged so that the ladder may be forced or carried upward to any desired extent without the stop or keeper requiring any attention. When it is desired to 60 lower the extension-ladder, the same is raised a short distance and the operator swings the keeper out of the range of the ladder and then permits the ladder to drop. 65

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of a folding step-ladder having arms or reaches for holding the legs 70 or supports of the ladder at a desired angle with each other, said arms or reaches being provided with guide-shoulders, an extension-ladder projecting through the step-ladder and guided by the shouldered reaches, and a 75 swinging, spring-actuated, fork-like part attached to the top step of the step-ladder for holding the extension-ladder in adjusted position, substantially as described.

In testimony whereof I have signed this 80 specification in the presence of two subscribing witnesses.

GEORGE W. HOOVER.

Witnesses:

W. O. BRAND,

W. E. TWOGOOD.