

W. AND M. H. PATERSON.
SIDEHILL ORCHARD LADDER.
APPLICATION FILED JAN. 20, 1921.

1,424,934.

Patented Aug. 8, 1922.

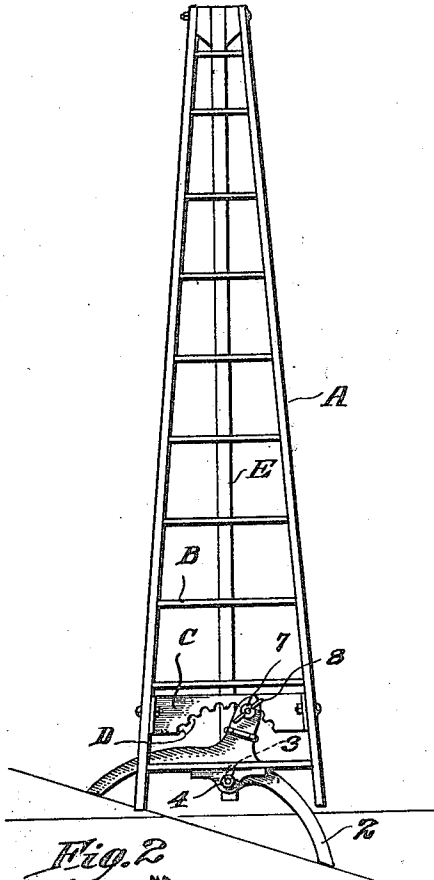


Fig. 2.

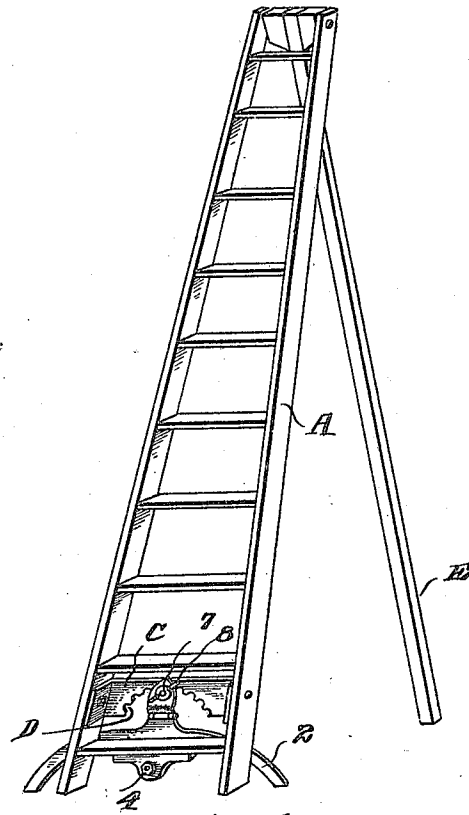


Fig. 1.

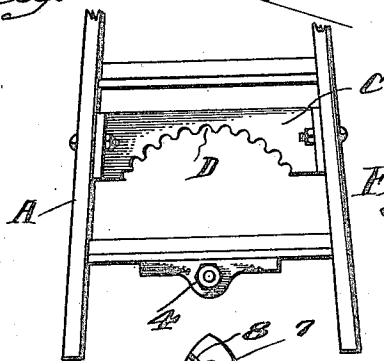


Fig. 4.

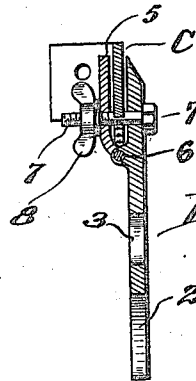


Fig. 3.

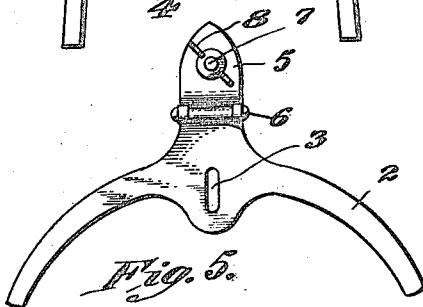


Fig. 5.

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SIDEHILL ORCHARD LADDER.

1,424,934.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM PATERSON and MAY H. PATERSON, citizens of the United States, residing at Oakland, in the county of Alameda and State of California, have invented a new and useful Sidehill Orchard Ladder, of which the following is a specification.

Our invention relates to improvements in side hill orchard ladders of the tripod type, and consists of an automatically adjustable base adapted to conform to uneven ground and means for locking automatically the base to the upright sides of the ladder.

More specifically, our invention relates to details of construction and the method of operating the ladder, reference being had to the accompanying drawing, in which Fig. 1 is a perspective view of the ladder, in upright position, with the adjustable base attached; Fig. 2 is a front view of the same showing a curved rack fixed to the main frame of the ladder, and the adjustable base set at an incline; Fig. 3 is an enlarged elevational view of the adjustable base; Fig. 4 is an enlarged front view of a portion of the ladder, showing the curved rack attached. Fig. 5 is an enlarged view of the triangular base.

The object of our invention is to furnish a handy orchard ladder particularly for side hill land, that will be light and compact and can be quickly adjusted to uneven land and require little attention in resetting by the operator.

In the drawing similar letters or numerals refer to similar parts throughout the several views. A represents the rails of the ladder, and B the steps, and E the third leg of the ladder. The rack C is in the form of a curve, having a series of circular cavities D, and is rigidly fixed to the upright part of the ladder. A triangularly formed base 2 has a slotted hole 3 centrally located between the lower points of its triangular base and a bolt 4 is fixed to the lower step of the ladder adapted to project through said slotted hole 3 thereby forming a pivot permitting the triangular base 2 to slide up and down and oscillate freely on said bolt 4.

The upper portion of base 2 is furnished with a movable jaw 5 pivotally connected at 6 to said base 2; a bolt 7 is fixed to said upper portion of base 2 and projects through the movable jaw 5; the shank of said bolt 7

is adapted to mesh into cavities in the rack C; said jaw 5 and the upper portion of base 2 forms guide bars that slide in a semi-circle back and forth on each side of rack C. Bolt 7 is furnished with a thumb nut 8 that serves to clamp or unclamp the upper portion of said base 2 to rack C. When the ladder is raised vertically, the base being loose will guide down the slotted hole 3 and adjust itself to the unevenness of the ground automatically, then when the ladder is lowered to the proper position the shank of bolt 7 will enter into one of the cavities in the curved rack C and lock the base 2 to the upright part of the ladder. The thumb nut 8 can be used when necessary to clamp the jaw 5 to rack C.

Having this described our invention, what we claim as new is:

1. In a side hill orchard ladder of the type described the combination of an automatically adjustable base pivotally attached by means of a bolt fixed to the lower step of the ladder, said bolt projecting through a vertically arranged slot centrally located in the upper portion of said base, permitting the base to slide up and down and to oscillate freely upon said bolt, a curved rack fixed to the main frame of the ladder, a movable clamp-jaw pivotally connected to the upper portion of said base, a bolt fixed to the upper portion of said base and passing through said movable jaw, the shank of said last mentioned bolt being adapted to mesh in the cavities in said curved rack, said vertically arranged slot permitting the shank of said last mentioned bolt to escape from the cavities in said rack when the ladder is raised.

2. In a side hill orchard ladder of the type described, the combination of an automatically adjustable base, pivotally attached by means of a bolt fixed to the lower step of a ladder, said bolt projecting through a vertically arranged slot centrally located in the upper portion of said base, permitting the base to slide up and down, and to oscillate freely upon said bolt; a clamp jaw, pivotally connected to the upper portion of said base, a bolt fixed to the upper portion of said base, adapted to pass through said movable jaw, said jaw and upper portion of said base forming guide bars capable of sliding in a semi-circle back and forth on the respective sides of said rack; the shank of said last mentioned bolt being adapted to mesh in

the cavities in the said curved rack, and a thumb screw threaded upon said last mentioned bolt, adapted to clamp said jaw securely to said curved rack.

- 5 3. In a side hill orchard ladder the combination of an automatically adjustable base of triangular form a movable clamp-jaw pivotally connected to the upper portion of said base, a bolt fixed to said upper portion of said base adapted to pass through
10 said movable jaw, a curved rack fixed to the

main frame of said ladder, said jaw and upper portion of said base forming guide bars that slide in a semi-circle back and forth on each side of said rack, the shank
15 of said bolt being adapted to mesh in the cavities in the curved rack.

WILLIAM PATERSON.
MAY H. PATERSON.

Witnesses:

RUTH BROOKS,
DORA B. COOLEY.