B. L. SIMMONS.

FRUIT LADDER.

APPLICATION FILED FEB. 2, 1915.

1,222,150. Patented Apr. 10, 1917.

Fig. 7.

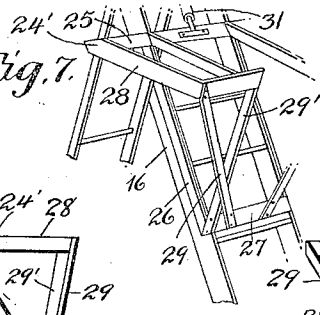


Fig. 1.

Fig. 2.

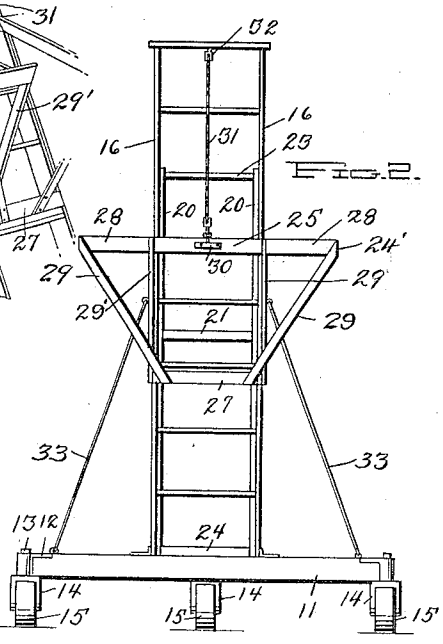
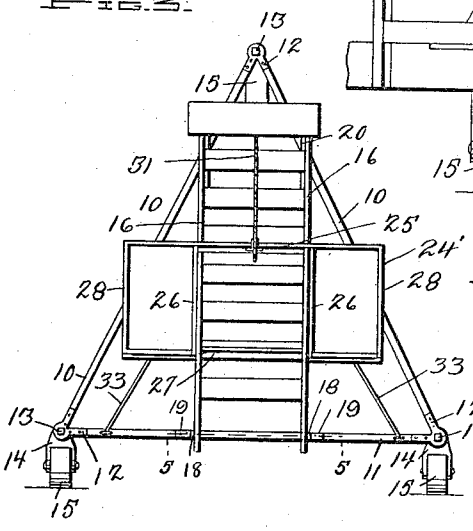


Fig. 6.

Fig. 3.



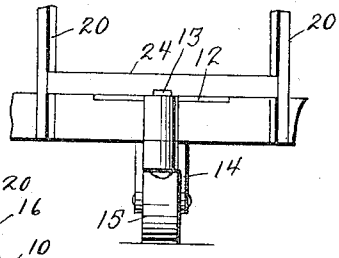


Fig. 4.

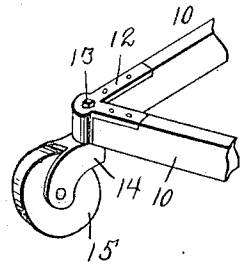
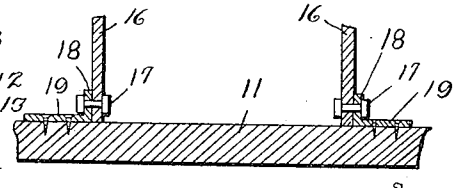


Fig. 5.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BYRON L. SIMMONS, OF WALLA WALLA, WASHINGTON.

FRUIT-LADDER.

1,222,150. Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed February 2, 1915. Serial No. 5,707.

To all whom it may concern:

Be it known that I, BYRON L. SIMMONS, a citizen of the United States, residing at Walla Walla, in the county of Walla Walla, State of Washington, have invented certain new and useful Improvements in Fruit-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.

This invention relates to improvements in ladders and particularly to ladders, used in gathering fruit.

One object of the invention is to provide a novel device of this character which can be easily moved from one place to another without the necessity of carrying the same.

Another object is to provide a device of this character which can be folded and moved from place to place without the necessity for carrying it.

Another object is to provide a ladder with a supporting base of such construction that the same can be readily moved about among the trees of an orchard.

A further object is to provide means for supporting baskets or boxes on the ladder which can be raised and lowered to suit the desires of the picker.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawings.

In the drawings:

Figure 1 is a side elevation of the ladder made in accordance with my invention,

Fig. 2 is a front elevation,

Fig. 3 is a top plan view,

Fig. 4 is a detail perspective view of one corner of the base,

Fig. 5 is an enlarged sectional view on the line 5—5 of Fig. 3, and

Fig. 6 is an elevation of the rear corner of the wheeled frame.

Fig. 7 is a fragmentary perspective view of the carrier.

Referring particularly to the accompanying drawing there is shown a base in the form of an open frame including the rearwardly converging side members 10 and the forward or base member of the triangle 11. The members of the frame are secured at the angles by means of the metal straps 12, bolts 13 being passed vertically therethrough and connected at their lower ends to forks 14 in which are mounted caster wheels 15. A ladder comprising the side rails 16 have their feet provided with laterally extending bolts or pins 17 which are rotatably engaged in perforated ears 18 carried by metal plates 19 secured to the upper head of the member 11 of the base. A prop for the ladder includes side rails 20 connected intermediate their ends by a transverse brace bar 21 and carried on their upper ends are the arcuate metal plates 22 which pivotally engage a transverse rod 23 mounted in the side rail 16 of the ladder. The lower ends of the rails 20 are connected by a cross bar 24 which rests on the convergent ends of the side members 10 of the base while the portions of the rail below this bar engage outwardly of these side members so that the ladder will be supported at the proper angle. It will be noted that the rails 20 are pivotally connected with the ladder at a point somewhat remote from the upper end of the ladder, thereby permitting the ladder to be more readily moved up through overlapping branches of adjacent trees and permit access to the fruit. A carrier 24′ is mounted on the ladder and consists of a member 25 which extends across the rails 16 and projects beyond the rails. Connected to this transverse member and engaging on the outer faces of the side rails of the ladder are the guiding strips 26, the lower ends of which are connected by a transverse strip 27 engaging on the upper edges of the rails of the ladder. Two rectangular frames 28 are provided and have one of their ends supported by the member 25, while the other ends thereof are supported by the bars 29 and 29′, the lower ends of which being connected to the strip 27 as clearly shown in Fig. 7 of the drawing. These frames are disposed on opposite sides of the ladder so as to permit the picker to pass between these frames when mounting the ladder. Secured centrally on the transverse member 25 is a cleat 30 to which is secured one end of a cable 31, this cable passing upwardly where it is trained around a pulley 32 secured to the top of the ladder and from whence it extends to a suitable point where it can be manipulated to raise and lower the carrier.

In moving the ladder through the orchard, it will be seen that by reason of the caster wheels it is not necessary to lift or carry any part of the ladder, and by reason of the triangular shape of the base frame, the same

can be more readily moved about among the trees.

Attention is also called to the fact that by reason of the extension of the ladder above the supporting prop 20 the ladder can be more readily moved in among the branches or limbs of the trees, particularly where they overlap.

Baskets or boxes are supported on the frames 28 in convenient position for the picker to drop the fruit from either side of the ladder, and by means of the adjustable nature of the carrier the picker can move the same so that it will be conveniently reached.

When the ladder is to be moved away from the orchard or to move the same past low limbs, the prop 20 is folded in against the underside of the ladder and the ladder folded down on to the base by means of the pivotal connections 18. Thus the necessity for lifting any part of the ladder or carrying it when moving it from one place to another is completely obviated. Connected to the front member 11 of the base at their lower ends and at their upper ends to the side rails of the ladder are the guys 33 for bracing the ladder against sidewise movement.

What is claimed is:

In a device of the class described, the combination with a base, a ladder supported on the base, a carrier having upper and lower bars for slidably engaging the side rails of the ladder, basket supporting frames associated with said bars and extending beyond the side rails of the ladder, said frames being spaced a distance equal to the width of the ladder to provide a passage, and means for raising and lowering the carrier on the ladder.

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

BYRON L. SIMMONS.

Witnesses:

EDWIN L. BREMTON,

SAMUEL E. KING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."