C. HEWETT.

ORCHARD STEP LADDER.

APPLICATION FILED APR. 26, 1912.

1,067,170. Patented July 8, 1913.

Fig 1

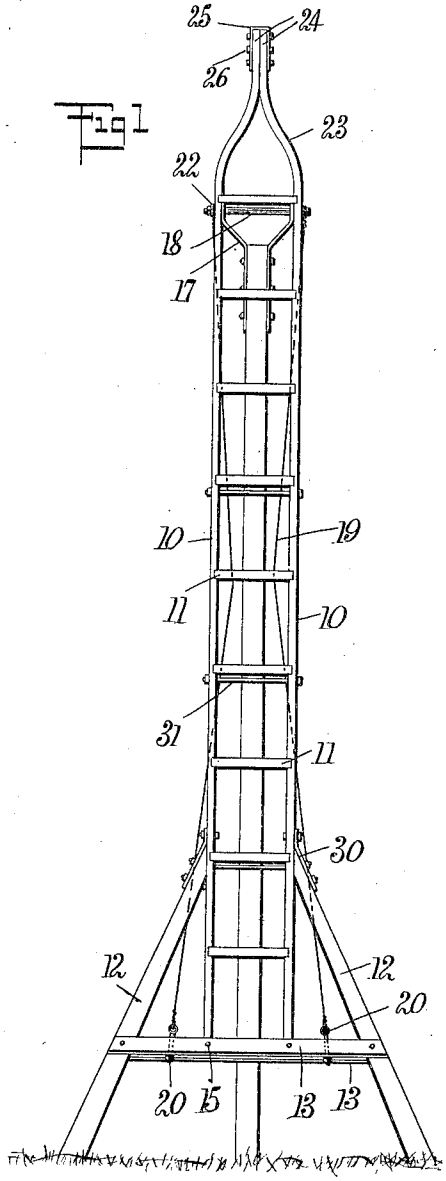
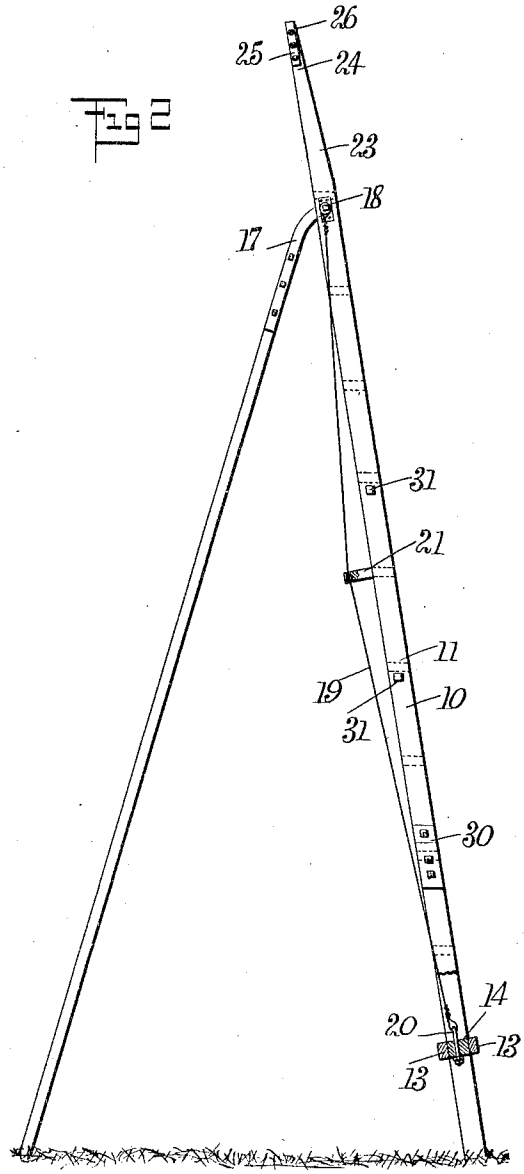


Fig 2



WITNESSES

C. J. Hachenberg.

J. L. McAuliffe

INVENTOR

Charles Hewett

BY Munn & Co

ATTORNEYS

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES HEWETT, OF WENATCHEE, WASHINGTON.

ORCHARD STEP-LADDER.

1,067,170. Specification of Letters Patent. Patented July 8, 1913.

Application filed April 26, 1912. Serial No. 693,291.

To all whom it may concern:

Be it known that I, CHARLES HEWETT, a subject of the King of Great Britain, and resident of Wenatchee, in the county of Chelan and State of Washington, have invented a new and Improved Orchard Step-Ladder, of which the following is a full, clear, and exact description.

An object of my invention is to provide an improved step ladder in which strength, lightness and rigidity combine to make the ladder especially convenient for use in orchards, and in work generally among trees and shrubs.

The improved construction provides a formation at the upper end of the ladder whereby the same may be readily entered between branches, and provides a form for the lower end of the ladder affording increased stability, particularly when used on soft ground. A special arrangement of truss members connects the upper and lower ends of the ladder, thereby giving strength and rigidity to the structure.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a front elevation of a ladder constructed in accordance with my invention; and Fig. 2 is a side elevation with parts broken away and others in section.

The ladder proper comprises side rails 10 and steps 11, and auxiliary props 12 secured to the side rails 10 of the ladder and diverging downwardly to give an enlarged base. The props are united by cross bars 13, forming the bottom, broadened step, between which bars a block 14 is secured, and to which the lower ends of the side rails 10 are bolted, as at 15, the lower ends of the side rails 10 being let into the block 14 in any approved manner.

At the back of the ladder is a swinging leg 16, having hanger bars 17 secured to its sides at the upper ends, which hangers diverge in an upward direction so that their terminals lie against the inner surface of the side rails 10 of the ladder proper to which the hangers are pivoted by a cross bolt 18. In connection with the ladder proper, truss wires 19 are employed, the lower ends of which are secured to eye-bolts 20, secured to the block 14 of the lower step, the bolts serving to tension the truss wires. Intermediate the upper and lower ends of the truss wires 19, a cleat 21, or like member, is secured to the back of the ladder proper, and constitutes a strut for the wires 19. The upper ends of the truss wires are secured at the outside of the ladder proper to the bolt 18 beneath the washers 22 thereof.

Above the bolt 18 the side rails 10 of the ladder are brought toward each other in curved form, producing rounded shoulders 23, and above the shoulders the side rails are brought into parallelism and into close relation, as at 24, and held together as by a clip 25 and bolts 26. The props 12 broaden toward the lower end to give an increased bearing surface on the ground to resist the tendency to enter soft ground, and said props are preferably secured to the side rails 10 of the ladder by clamping plates 30, bolted respectively to the props 12 and the side rails 10. Any desired number of cross bolts 31 may be employed to clamp the side rails of the ladder against the ends of the steps.

By forming the upper end of the ladder as described, the terminals 24 produce a single unitary member for penetration between the branches of the trees, while the rounded shoulders 23 immediately below said unitary terminal end serve to readily deflect the branches. In this way the ladder is readily entered and placed in position without inconvenience to the user and without damage to the branches. Moreover, by bringing the side rails together in the manner described, and fastening the same, increased rigidity and strength are given the ladder to resist lateral stresses, and the side rails are firmly held against any tendency to move longitudinally relative to each other.

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

A ladder, comprising a body formed of side rails and steps, supporting props at the bottom united to the side rails at points above the lower ends of said rails and extending below the latter, said props diverging outwardly, giving the ladder a widened base and being provided with a cross step uniting the props to each other and to the side rails, truss wires serving to truss both the ladder body and the described props and cross bar, said truss wires being secured by a bolt at their upper ends to the side rails

of the ladder, near the upper ends of the latter, and a strut disposed on the back of the ladder and borne upon by the truss wires, the truss wires diverging from the strut toward the lower end of the ladder, passing outward beyond the side rails adjacent to the upper ends of the props and thence to connections with the cross bar of the props at points between the said props and the side rails of the ladder, the ladder furthermore having a rear leg pivoted at its upper end by the bolt that secures the upper ends of the truss wires.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

CHARLES HEWETT.

Witnesses:
LOUIS J. CROLLARD,
H. W. BODERLING.

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