

L. F. REICHARDT.

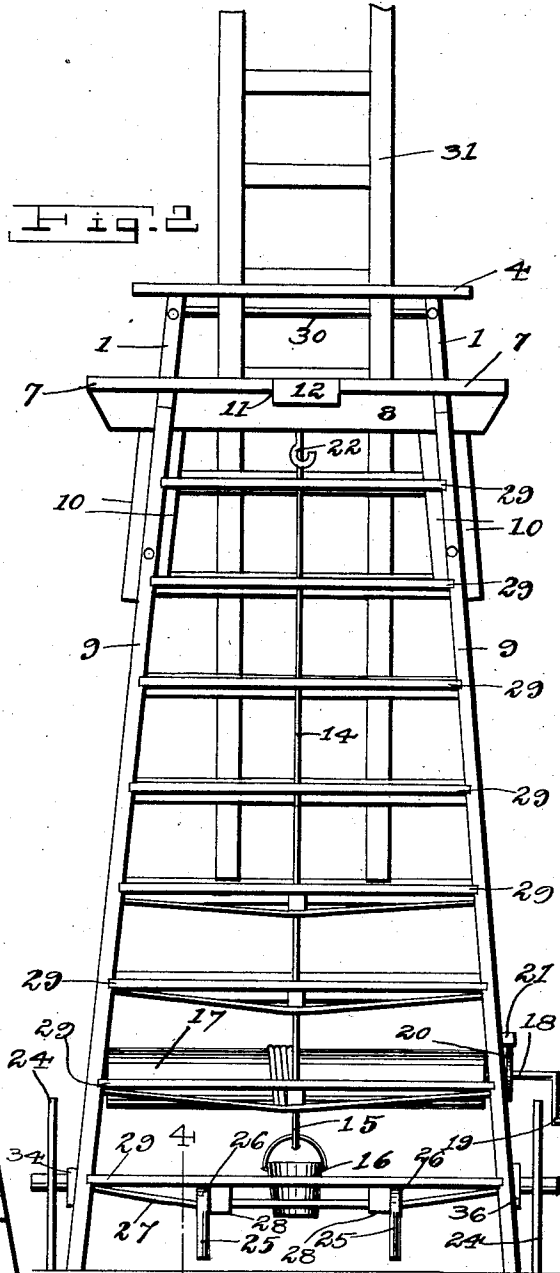
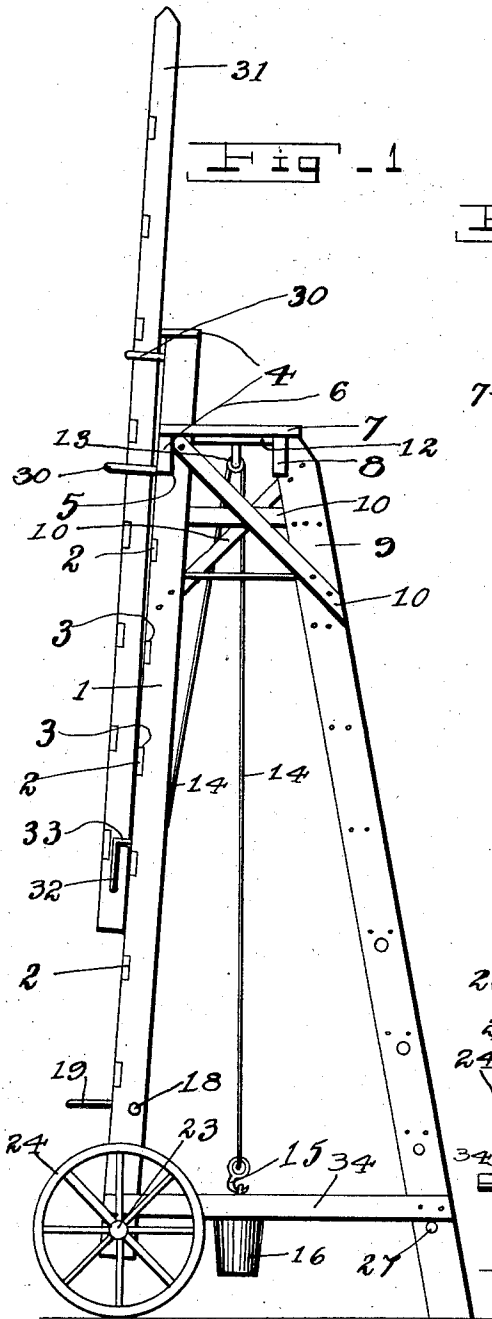
LADDER.

APPLICATION FILED SEPT. 5, 1911.

1,021,629.

Patented Mar. 26, 1912.

3 SHEETS-SHEET 1.



Inventor
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Witnesses

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H. K. Parsons

By Harry Ellis Chandler

Attorney

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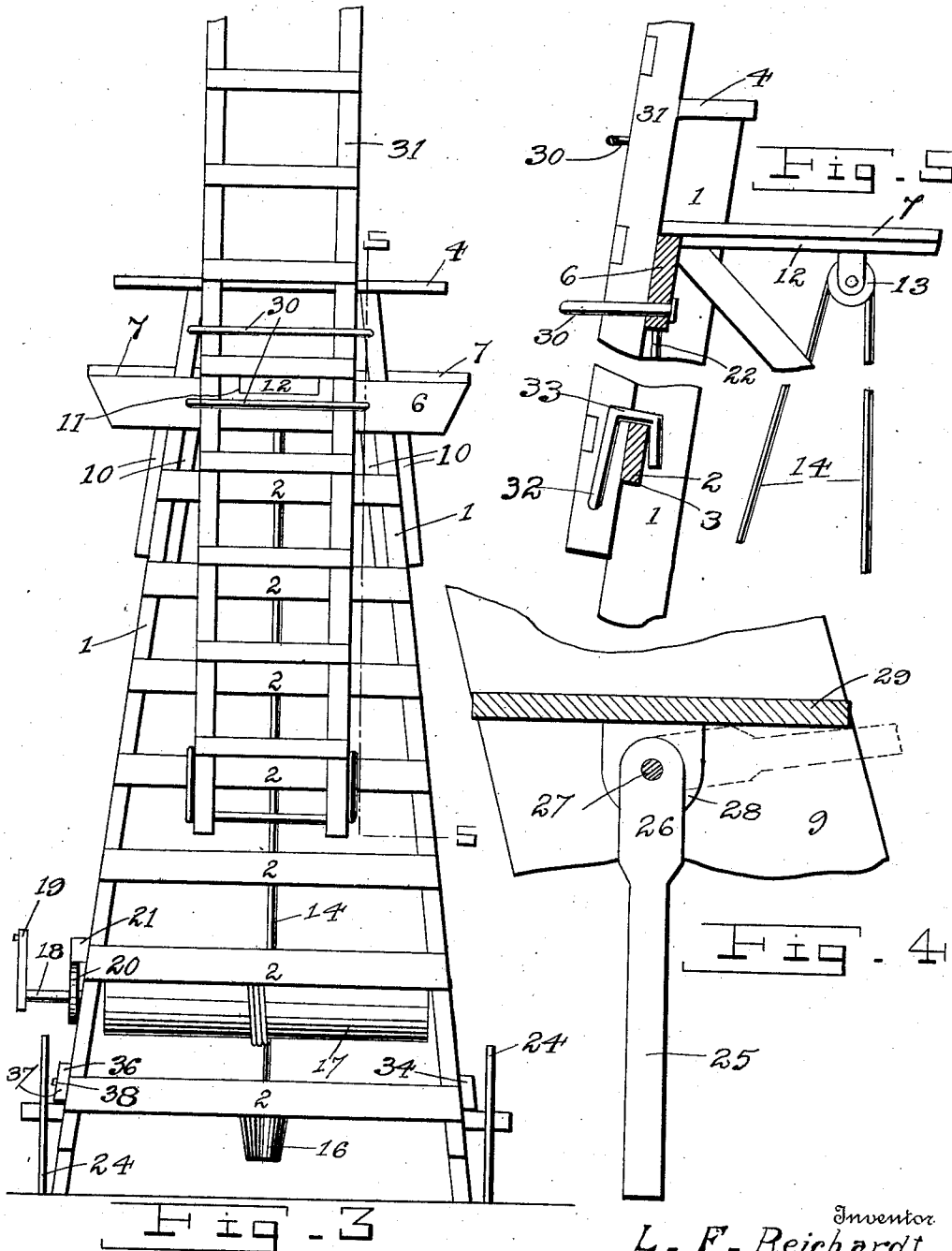
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3 SHEETS-SHEET 2.



Witnesses

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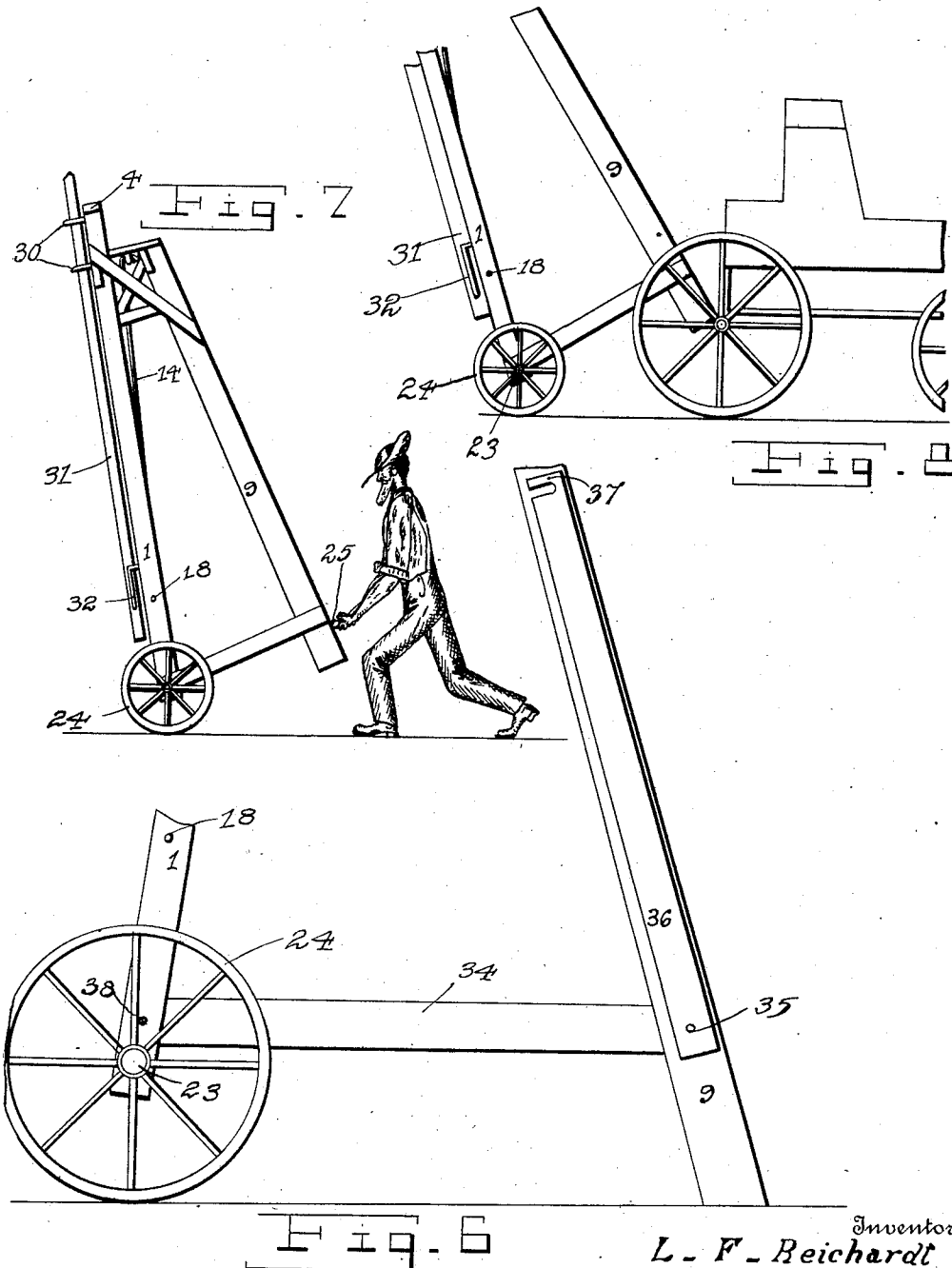
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3 SHEETS-SHEET 3.

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Witnesses

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UNITED STATES PATENT OFFICE.

LOUIE F. REICHARDT, OF MASSENA, IOWA.

LADDER.

1,021,629.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed September 5, 1911. Serial No. 647,789.

To all whom it may concern:

Be it known that I, LOUIE F. REICHARDT, a citizen of the United States, residing at Massena, in the county of Cass and State of Iowa, have invented certain new and useful Improvements in Ladders, of which the following is a specification.

My invention relates to improvements in ladders, and has particular reference to a novel form of extension ladder which may be readily moved from place to place.

The object of my invention is the provision of an improved ladder particularly adapted for picking fruit or other similar purposes which will not require any additional supports but which may be readily positioned to enable a person to pick fruit from the branches of any tree of ordinary height, and which may be easily shifted from one tree to another without the necessity of lowering the extension or in anywise changing the adjustment of the ladder.

A further object of my invention is the provision of an improved means for supporting my extension ladder and of improved handles so secured to the ladder support as to be normally out of the road but as to permit of ready shifting of said handles into operative position when it is desired to move the ladder.

Other objects and advantages of my improved ladder will be readily apparent by reference to the following description taken in connection with the accompanying drawings, and it will be understood that I may make any modifications in the specific structure shown and described within the scope of my claim without departing from or exceeding the spirit of my invention.

Figure 1 represents a side elevation of my ladder with the extension partially raised. Fig. 2 represents a front view of the ladder. Fig. 3 represents a rear view thereof. Fig. 4 represents an enlarged fragmentary sectional view on the line 4—4 of Fig. 2. Fig. 5 represents a similar sectional view on the line 5—5 of Fig. 3. Fig. 6 represents an enlarged fragmentary side elevation of the lower portion of the main ladder frame showing one of the braces in upwardly swung position. Fig. 7 represents a view of the ladder being manually shifted or moved, and Fig. 8 represents a view of the same hitched to the rear of a wagon.

In the drawings, the numeral 1 designates

the main uprights of my ladder which are connected by the rungs 2 fitting within the recesses 3 formed in the rear face of the standards 1. Said standards converge upwardly and have secured to their upper ends the cross piece 4 projecting laterally from the standards.

Secured in the recess 5 near the upper ends of the standards 1 is the cross piece 6 on which rests one end of the platform sections 7 having their other ends resting on and secured to the cross piece 8 carried by the step ladder standards 9. A plurality of braces 10 serve to connect the standards 1 and 9 and satisfactorily brace the upper ends thereof with respect to each other. The cross pieces 6 and 8 each have formed in the central portion thereof a recess 11, while fitting into said recesses 11 and extending across the ladder between the two platform sections 7 is the beam 12 having secured to its under side the sheave 13 around which passes the rope 14. Said rope has on one end the hook 15 for receiving the bail of the bucket 16, while the other end of the rope is secured to the windlass drum 17 secured on the shaft 18 journaled in the uprights 1 near their lower end. Said shaft has on its outer end the crank 19 for rotating the same and is further provided with the ratchet 20 engaged by the pawl 21 for locking the shaft against reverse rotation to hold the bucket in desired raised position. Hooks 22 depending from the cross pieces 6 and 8 adjacent the sheave serve as supports upon which the pail or other desired articles may be hung.

By reference to the drawings it will be seen that the standards 9 extend lower than the standards 1, while rotatably mounted in the lower ends of the standards 1 is the shaft 23 bearing on each end a wheel 24. Normally the resting of the ends of the standards 9 on the ground prevents the ladder from moving on the wheels, but when desired to shift the ladder from one place to another it is merely necessary to tilt the same until the lower ends of the standards 9 are off the ground when the ladder may be easily run along on the wheels.

To facilitate the tilting of the ladder, I employ the handles 25 having collar portions 26 rotatably mounted on the truss brace 27 which passes through the truss blocks 28 and has its ends secured in the

sides 9. The majority of the steps 29 have extending therebeneath the truss rods, but only the lowermost step has a pair of blocks 28, these blocks serving to hold the collars of the handles spaced the correct distance apart. When it is desired to shift the ladder a considerable distance, instead of manually grasping the handles to tilt the ladder, I preferably secure the truss rod to the rear of a wagon at such an angle that the top of the ladder will be prevented from dragging on the ground and the weight of the ladder will be approximately balanced on the axle of the wheels.

In order that I may satisfactorily employ my improved ladder in picking fruit from high trees whose branches extend a considerable distance above the cross piece or platform 4, I secure to the cross piece 6 and to the upper ends of the standards 1 the U-shaped guide brackets 30 through which passes the straight ladder 31 having extended through the lower ends of its sides the rod 32 bent into the hooks 33 for engaging one of the rungs 2 to hold the extension ladder in adjusted position relative to the main ladder section.

It will be understood that in some instances that it is desirable to allow a small tree or some fixture to project between the two upright portions of the main ladder while being generally more desirable to have the lower ends of the standards 1 and 9 connected and braced together and I therefore connect the standards 1 and 9 on one side by the brace 34, while at the other side I pivot to the standard 9 by the bolt 35 the brace 36 having a hook 37 on its free end for engaging the bolt 38 carried by the standard 1 to normally brace the standards relative to

each other but being capable of being swung upward out of the way when desired.

From the foregoing description taken in connection with the accompanying drawings the construction of my improved extension ladder will be readily understood, and it will be seen that I have provided an improved ladder which will extend upward without being leaned against a building or support and which will consequently commend itself to farmers, mechanics, artisans and all others having use for a ladder as being especially desirable both on account of this feature and also on account of the ease with which it may be shifted or transported from one place to another.

I claim:

A ladder comprising a main section, a step ladder section rigidly secured near its upper end to the upper end of the main section, truss blocks secured to the lowermost step of the step ladder section and arranged in spaced relation, a truss brace connecting the lower ends of said section and passing through the truss blocks, handles pivotally connected to the truss brace and held in spaced relation by said blocks, wheels carried by the main section, said handles being adapted to engage the lowermost step of the step ladder section when grasped and swung upwardly whereby the weight of the sections are thrown upon the wheel when it is desired to move the ladder.

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

LOUIE F. REICHARDT.

Witnesses:

GEORGE ARNOLD,
OTTO WILLER.