

M. F. ENKE.
LADDER.

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1,385,319.

Patented July 19, 1921.

Fig. 1.

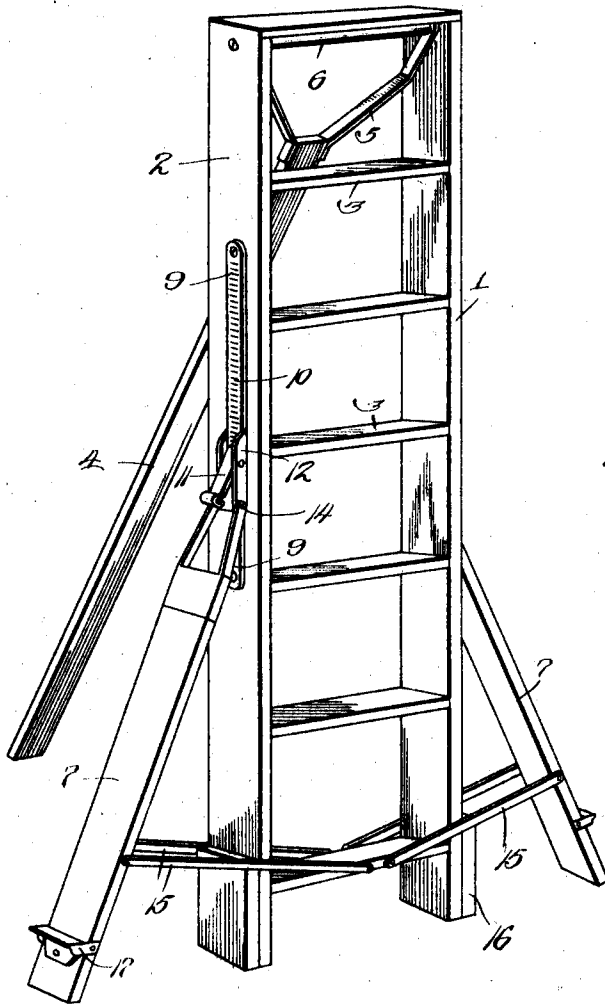


Fig. 2.

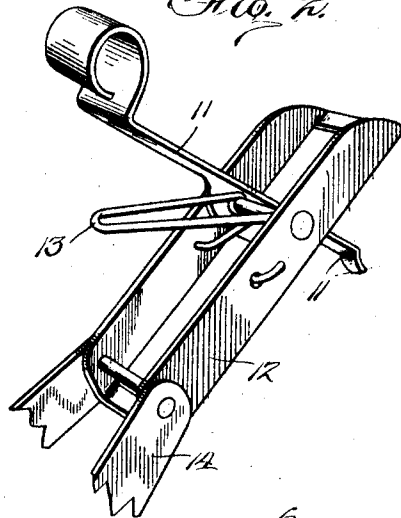
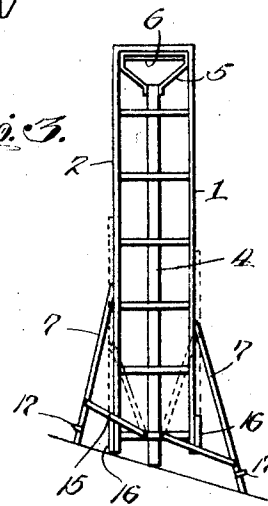


Fig. 3.



Witnesses:

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LADDER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARTIN F. ENKE, citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Ladders, of which the following is a specification.

This invention relates to improvements in ladders and more particularly to a ladder adapted for use on incline surfaces such as is frequently found in side hill orchards.

Another object of my invention is to provide a ladder which will stand alone, which is light in weight, simple in construction and which is easily adjusted when used in positions where the supporting surface is inclined.

With these and other objects in view, the invention consists in the novel construction, combination and arrangement of parts herein illustrated and more particularly pointed out in the appended claims.

Reference being had to the accompanying drawings forming a part of this specification:

Figure 1 is a view in perspective showing my improved ladder in its upright position and standing on a substantially level surface.

Fig. 2 is an enlarged view in perspective of my improvement showing the manner of holding the upper ends of the auxiliary feet.

Fig. 3 is a view in front elevation showing the same as arranged for use on an incline surface.

Referring to corresponding parts of the several views by the same numerals of reference, 1 and 2 denote the side bars of my improved ladder having steps 3. While I have illustrated broad steps it will be understood that rungs may be used as in an ordinary ladder. To enable the ladder thus formed to be supported in an upright position without leaning it against a building, tree or other object, I provide the brace member 4 on the top of which is secured bars 5 which are pivotally mounted on a rod 6 extending across the top of members 1 and 2.

It is often desirable to use a ladder in a position where the supporting surface is inclined in such a direction that if members 1 and 2 rested thereon the ladder would not stand vertically. To provide for such cases the auxiliary supporting members 7 are secured to the side members 1 and 2. Each

of these supports consists of a flat member having a metallic plate at the upper end with upwardly extending companion ends 14 pivotally connected to the sliding sleeve 12 wherein the spring actuated pawl 11 has its bearing. The spring 13 is for the purpose of locking or releasing the pawl 11 as it engages with the plurality of perforations 10 enabling the upper end of member 7 to be secured at any desired position along the rack 9, the rack 9 being rigidly secured to the sides of members 1 and 2.

The spring pawl 11 may be released from the rack 9 by a slight pressure on its lower curved end, thereby enabling the auxiliary legs 7 to be folded upward to the body of the ladder.

The lower ends of members 7 are connected to the lower end of the ladder by means of links 15 which are pivotally secured at one end to the lower step of the ladder and on the other ends of member 7 adjacent the bottom. Said links serve to maintain the legs in such position that the longitudinal median lines thereof are approximately opposite the longitudinal median lines of the side bars of the ladder. Blocks 16 are attached on the bottom of members 1 and 2, giving to the ladder greater bearing surface and also when members 7 are in their folded position to provide a substantially flush surface as the lower end of members 7 fold in above these blocks.

When this ladder is to be used on an uneven surface such as is shown in Fig. 3 the spring pawl 11 is disengaged from the rack 9, and when the ladder is stood in a vertical position the members 7 are moved downward by a slight pressure with the foot on the lug 17 until their lower ends rest on the ground. Thus on the upper side of the incline the one ladder leg and one member 7 bear on the ground, while on the lower side only the members 7 rest on the supporting surface. In this position the spring pawl 11 engaging the perforations 10 locks automatically and the ladder is thus supported in the vertical position, the weight on the lower side being supported by the auxiliary leg 7. The upper ends of the members 7 cannot move, due to the manner of binding them to the sides of the ladder, while the lower ends are held through the links 15. When the ladder is not in use these members 7 may be folded flat against

the side bars 1 and 2 and the supporting leg 4 is folded flat against the steps, thus making the device compact and readily handled.

5 While I have shown the preferred embodiment of my invention it will be understood that minor changes may be made in detail and construction without departing from the scope of the claims.

10 I claim as new and wish to cover by Letters Patent:—

1. An improved ladder comprising a ladder body having side bars provided with an elongated rack, said rack having a plurality
15 of perforations, auxiliary legs provided with a sliding sleeve pivotally attached to

the upper ends thereof, a spring pawl within the sliding sleeve, and adapted to engage the perforations in said elongated rack, said auxiliary legs may be adjusted to swing in an arc from the ladder body substantially as specified. 20

2. An improved ladder comprising a ladder body, auxiliary legs provided with a sliding sleeve at their upper ends, a spring actuated pawl within said sliding sleeve and means for detachably connecting said pawl to the ladder body, said means being adjustable longitudinally of said ladder body substantially as set forth. 25

In testimony whereof I affix my signature.
MARTIN F. ENKE. 30