E. W. FARNSWORTH.

ADJUSTABLE LADDER FOOT.

APPLICATION FILED AUG. 10, 1917.

1,265,636. Patented May 7, 1918.

Fig. 1.

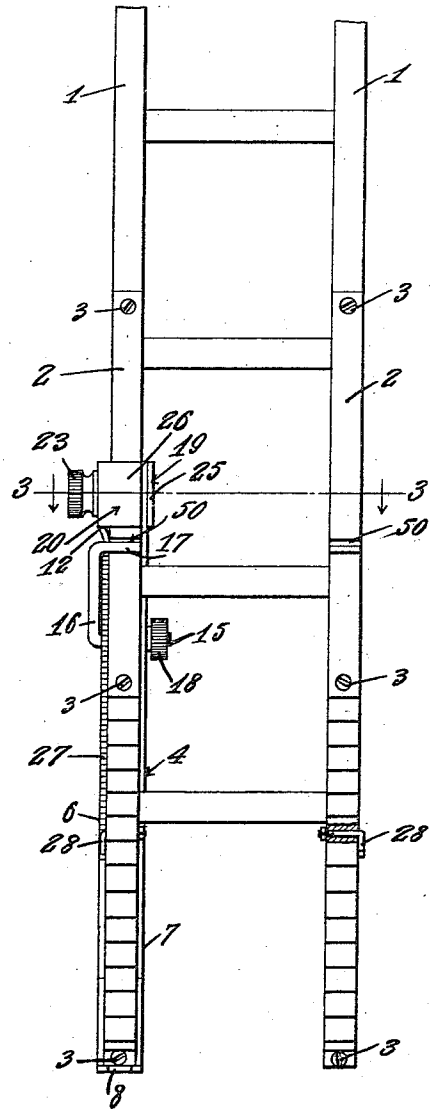


Fig. 2.

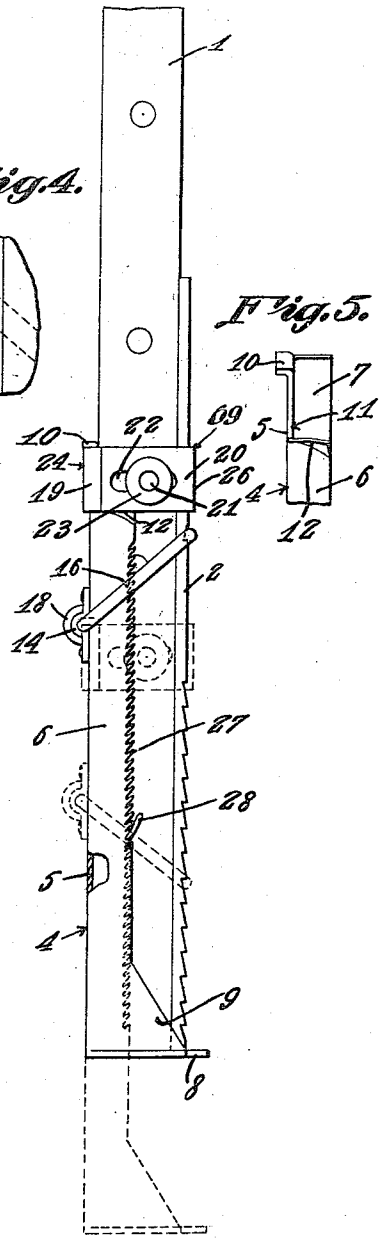


Fig. 4.

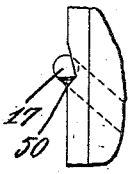
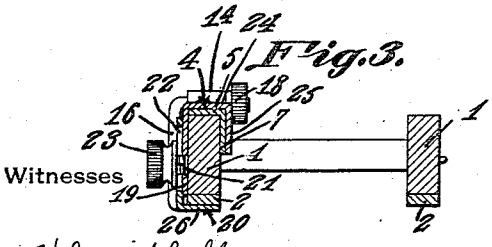


Fig. 5.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE LADDER-FOOT.

1,265,636. Specification of Letters Patent. Patented May 7, 1918.

Application filed August 10, 1917. Serial No. 185,556.

To all whom it may concern:

Be it known that I, EMERSON W. FARNSWORTH, a citizen of the United States, residing at Buckhannon, in the county of Upshur and State of West Virginia, have invented a new and useful Adjustable Ladder-Foot, of which the following is a specification.

By way of explanation it may be stated that when a ladder is used on uneven ground, it is customary to block up one of the stiles of the ladder, to compensate for the unevenness of the ground.

The present invention aims to provide novel means for elongating one of the stiles of the ladder, to adapt the ladder to uneven ground.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 is a front elevation of a ladder to which the claimed improvements have been applied;

Fig. 2 is a side elevation of the ladder;

Fig. 3 is a section on the line 3—3 of Fig. 1, parts being left in elevation;

Fig. 4 is a fragmental side elevation showing the means for retaining the support in retracted position when the same is not in use;

Fig. 5 is a fragmental perspective showing the upper end of the support.

The numeral 1 denotes the stiles of a ladder. Racks 2 are attached to the front edges of the stiles 1 by means of securing elements 3.

The invention comprises a trough-shaped support 4 mounted to reciprocate on one of the stiles 1 and adapted to be mounted on either of the stiles. The support 4 includes a back 5, an outer side 6 and an inner side 7, together with a foot 8, the sides 6 and 7 being broadened as shown at 9, where they connect with the foot. The upper end of the back 5 of the support 4 is turned outwardly to form a lip 10. The outer side 6 of the support 4 is cut away as at 11, to form a shoulder 12. The back 5 of the support 4 carries a socket 14 in which is mounted rotatably, one finger 15 of a U-shaped bar 16, including a finger 17 adapted to coöperate with the rack 2. A retainer 18 is mounted on the finger 15 and coacts with the socket 14 to hold the finger therein, the retainer being in the form of a nut, if desired.

The invention comprises a clamp 69, including an inner hook-shaped jaw 19 which engages the outer face of the stile 1 and is supported on the shoulder 12. The jaw 19 is overlapped by an outer jaw 20. The inner jaw 19 has a stud 21 mounted to move in a slot 22 in the outer jaw 20. A nut 23 is threaded onto the stud 21 and is adapted to bear against the outer jaw 20. The inner jaw 19 is provided with a perpendicularly disposed arm 24 which bears against the back 5 of the support 4 and is engaged beneath the lip 10. The arm 24 terminates in a perpendicularly disposed finger 25 engaging the inner side 7 of the support 4. The outer jaw 20 has a perpendicularly disposed finger 26 which bears against the rack 2.

Teeth 27 are formed in the outer side 6 of the support 4. The teeth 27 are spaced apart less widely than are the teeth of the rack 2. A pawl 28 is pivoted to each of the stiles 1 and is adapted to coöperate with the teeth 27.

In practical operation, the support 4 is adjusted vertically until the foot 8 is the desired distance below the stile 1. The stop bar 16 is swung until the finger 17 engages with the rack 2. Then, a slight upward movement of the support 4 will cause the back 5 thereof to bind against the rear edge of the stile 1. The jaws 19 and 20 are brought to bear, respectively, against the rear edge of the support and the rack 2 on the stile, the nut 23 being tightened up to hold the jaws against separation. The support 4 thus is held securely to the stile 1.

The teeth 27 are spaced apart less widely than are the teeth of the rack 2. When a fine adjustment is required, the pawl 28, therefore, is engaged in the teeth 27.

The support 4 may be shifted from one stile 1 to the other stile 1, and when the support is shifted, the stop bar 16 must be reversed, because, obviously, the stop bar should operate on the outside of that particular stile 1 wherewith the support 4 is assembled. In order to permit a reversal of the stop bar, as above described, the retainer

or nut 18 is removed from the finger 15. The racks 2 may be provided with notches 50 and the finger 17 may be engaged in the notches to hold up the support 4 when the same is not in use.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a ladder comprising a stile; a rack on the stile; a support mounted to reciprocate on the stile longitudinally thereof; a stop bar pivoted to the support and adapted to engage the rack; a clamp engaging the rack and the support; and a pawl pivoted to the stile, the support having teeth coacting with the pawl, the said teeth being spaced apart less widely than are the teeth of the rack.

2. In a device of the class described, a ladder comprising a stile; a trough-shaped support slidable longitudinally of the stile and including a back and a side, the side being cut away to form a shoulder, and the back being provided at its upper end with a lip; and a clamp engaging the back and coöperating with the stile, the clamp including a part supported on the shoulder, and a part engaged beneath the lip.

3. A ladder comprising stiles and rungs; racks carried by the stiles; a support slidable on one stile, longitudinally thereof, and adapted to be mounted on either stile; a U-shaped stop bar engaging the rack and disposed on the outer side of said stile to clear the rungs, the support having a socket, and the stop bar including a finger mounted in the socket, the finger being reversible in the socket when the support is shifted from the outside of one stile to the outside of the other stile; and means for removably holding the finger in the socket.

4. In a device of the class described, a ladder comprising a stile; a rack on the forward surface of the stile; a support slidable longitudinally of the stile and of trough shape in cross section to receive the rear portion of the stile, the support being provided at its lower end with a transverse foot extended beneath the lower end of the stile and serving as a wear plate for the lower end of the stile when the support is elevated to bring the foot against the lower end of the stile; and a stop bar pivoted to the support and coacting with the rack.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EMERSON W. FARNSWORTH.

Witnesses:

F. J. FARNSWORTH,

C. R. BYRNE.

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