March 18, 1930. T. G. RICE 1,751,173

EXTENSIBLE LADDER FOOT

Filed March 30, 1928

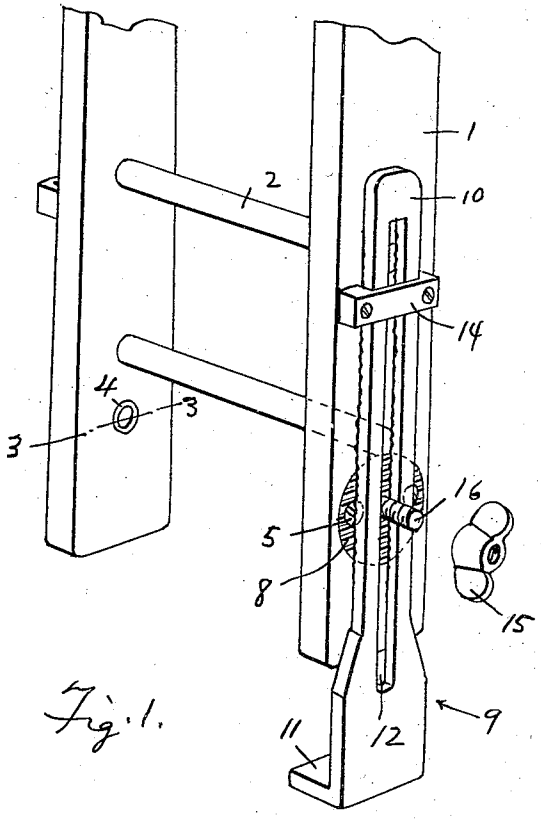


Fig. 1.

Fig. 2.

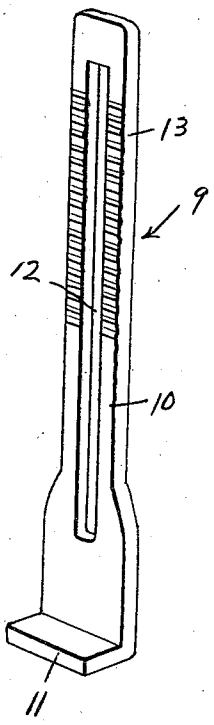


Fig. 3.

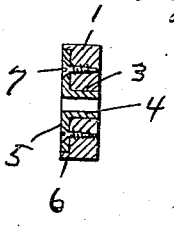
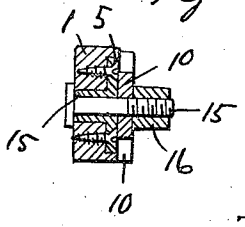


Fig. 4.



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UNITED STATES PATENT OFFICE

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EXTENSIBLE LADDER FOOT

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The present invention relates to improvements in attachments for ladders and has for its principal object to provide an extensible foot or association with one of the legs or side rails of a conventional ladder whereby to bring the ladder into upright position even though it be standing upon a sloping, angular or irregular surface, thereby providing a firm footing and preventing slipping and consequent injury to the workman.

One of the important objects of the present invention is to provide an extensible foot for a ladder that can be readily and easily adjusted, the attachment being of such construction as to permit the same to be associated with a conventional ladder without necessitating any material alterations and this without impairing the strength of the ladder.

A still further object is to provide an extensible ladder foot of the above mentioned character which is simple in construction, inexpensive, strong and durable and further well adapted to the purposes for which it is designed.

Other objects and advantages will become apparent during the course of the following description.

In the accompanying drawing, forming a part of this specification, and in which like numerals indicate like parts throughout the same:—

Figure 1 is a fragmentary perspective view of the lower portion of a ladder showing my extensible foot attachment mounted on one of the side rails, the thumb nut being shown disengaged from the bolt,

Figure 2 is a detail perspective view of the slidable unit, forming a salient part of the invention,

Figure 3 is a sectional view taken approximately on the line 3—3 of Figure 1, and

Figure 4 is a similar section showing the manner in which the slidable unit is secured in adjusted position on the adjacent side rail of the ladder.

In the drawing wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates the side rails of a conventional ladder, the rungs being shown at 2. The lower end portion of each side rail is formed with a transverse opening 3 in which is disposed a sleeve 4 carried by a circular base plate 5 that is disposed within a cutout portion provided therefor in the outer face of each side rail and this base plate is rigidly secured in the cutout portion 6 by the work screws 7 in the manner as clearly shown in Figures 3 and 4. The outer face of the base plate 5 is formed with the horizontally extending corrugations or teeth 8 as disclosed in Figure 1 and the purpose thereof will be presently described.

Forming a salient part of the present invention is the slidable unit designated generally by the numeral 9 the same comprising an elongated flat bar 10 that is enlarged at its lower end and is formed with a laterally disposed ground engaging portion 11. This flat elongated bar 10 is formed with a longitudinally extending slot 12 and the inner face of this flat bar is formed with the transverse corrugations or teeth 13 for cooperation with the horizontally disposed corrugations or teeth 8 formed in the outer face of the base plate 5.

A guide bracket 14 is provided for the upper end of the slidable bar 10 and the outer face of each side rail 1 at a point above the base plate 5.

For the purpose of locking the slidable bar in any vertically adjusted position whereby the teeth 13 will be maintained in locked engagement with the teeth 8 I provide a bolt 15 that extends through the sleeve 4, the head of the bolt engaging with the inner face of the side rail while the threaded end extends through the slot 12 formed in the bar 10 and a thumb nut 16 is threaded on the outer end of this bolt for engagement with the outer face of the slotted bar 10 as clearly shown in Figure 4.

In this manner, the extensible foot may be properly adjusted on either one of the side rails of a conventional ladder whereby to maintain the ladder in an upright position regardless of the surface on which the ladder is adapted to rest.

An extensible foot of the above mentioned character will at all times be positive and efficient in carrying out the purposes for

which it is designed, and due to its simplicity, the same can be readily adjusted and can furthermore be associated with a ladder structure without necessitating any material alterations of the parts of the ladder with which said extensible foot is to cooperate.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claim.

What I claim is:—

In an extensible foot for ladders, wherein one of the side rails of the ladder is formed with a transverse opening and a cutout portion in the outer face of the lower end thereof, a base plate for disposition in said cutout portion, a sleeve formed on the base plate for disposition in said transverse opening, the outer face of the base plate being formed with transverse teeth, an elongated slotted bar arranged for vertical slidable movement along the outer face of the side rail, a guide bracket secured on the outer face of the side rail through which the upper end of said slotted bar extends, a ground engaging foot formed on the lower end of said slotted bar, the inner face of said slotted bar being formed with transverse teeth for cooperation with the transverse teeth on the outer face of the base plate, a bolt extending through the sleeve and the slotted bar, and a nut threaded on the outer end of the bolt for engagement with the outer face of the bar to lock the bar in any vertically adjusted position.

In testimony whereof I affix my signature.

THOMAS G. RICE.