

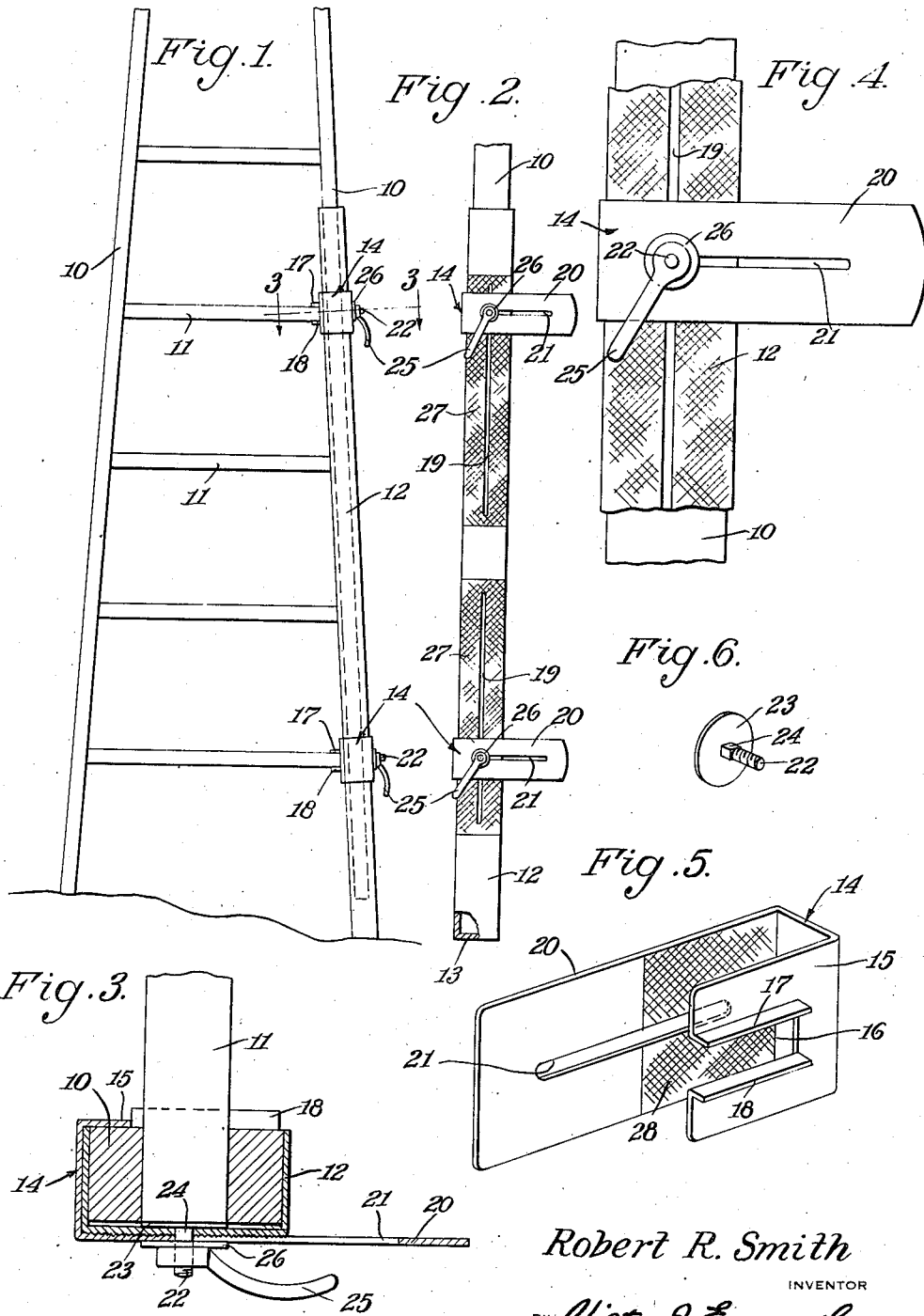
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LADDER EXTENSION JACK

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LADDER EXTENSION JACK

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2 Claims. (Cl. 228—63)

This invention relates to a ladder extension jack and has for an object to provide a jack adapted to lengthen the side rail of a ladder to make the ladder set level on uneven surfaces, such as sloping ground portions, roofs, steps, and other places.

A further object is to provide an extension jack devoid of any securing devices which extend through the side rail to weaken the side rail.

A further object is to provide a device of this character which may be adjusted to ladders of various sizes.

A further object is to provide a device of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts herein-after fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a front elevation of an extension jack constructed in accordance with the invention applied to the side rail of a ladder.

Figure 2 is a side elevation of the extension jack applied.

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a detail side elevation of a portion of the extension jack drawn to large scale.

Figure 5 is a detail perspective view of one of the securing members.

Figure 6 is a detail perspective view of a bolt.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates the side rail and 11 the rungs of a ladder. The extension jack forming the subject matter of this invention comprises a channel bar 12, closed at its lower end as shown at 13 in Figure 2.

The channel bar is secured to one side rail of the ladder for vertical adjustment with relation thereto by securing members 14, best shown in Figure 5. Each securing member is substantially U-form in plan and transversely straddles the channel bar 12 and engages the rear face of the side rail 10 of the ladder as shown in Figure 3. There are two securing members

and the inner leg 15 of each securing member is provided with a longitudinal slot 16 for the reception of a rung of the ladder. Flanges 17 and 18 are provided at the upper and lower sides of the slot for contact with the rung of the ladder.

The outer side or web of the channel bar 12 is provided with longitudinally disposed aligned slots 19, best shown in Figure 2. The outer leg 20 of each securing member is provided with a longitudinal slot 21 which extends across the respective longitudinal slot 19 of the channel bar.

Bolts 22, best shown in Figure 6, are engaged through the slots 19 of the channel bar and through the slots 21 of the securing members. The head 23 of each bolt is engaged against the inner face of the channel bar web, as best shown in Figure 3, and the bolt is provided with a square neck 24 which fits in the slot 21 of the respective securing member 14 and prevents rotation of the bolt. A tail nut 25 is screwed onto the bolt and a washer 26 is confined between the tail nut and the securing member 14.

To prevent slipping of the securing member 14 on the channel bar, the channel bar is roughened as shown at 27 on each side of the vertical slots 19 and also the inner face of the outer leg 20 of the securing member 14 is roughened on both sides of the longitudinal slot thereof as shown at 28. These roughened confronting faces of the channel bar and securing members frictionally engage each other when the tail nut 25 is tightened so that slipping of the parts is positively prevented.

In operation the channel bar 12 is applied to a side rail 10 of the ladder and slid into such position that the bottom 13 thereof engages the lower portion of a sloping roof, uneven ground, or other places, to dispose the rungs 11 horizontally. The securing members 14 are then placed astride of the channel bar and side rail with the flanges 17 and 18 thereof engaged over respective rungs 11, which latter are disposed at the inner ends of the slots 16 in the securing members. The tail nuts 25 of the securing members are now tightened to draw the securing members tight against the channel bar and draw the channel bar tight against the side rails 10 of the ladder.

It will be pointed out that the bolts 24 of the securing member do not penetrate or mutilate the side rail of the ladder so that the side rail is not weakened in any manner. Moreover, the securing members may be applied and

removed easily and quickly without the use of special tools.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. A ladder extension jack comprising a channel bar adapted to receive a side rail of a ladder at the bottom thereof, the web of the bar having a longitudinal slot, a securing member of substantially U-form in plan straddling the channel bar transversely and having an inner leg engaging the rear face of said side rail, said inner leg being slotted to receive a rung of the ladder, said inner leg having flanges at the upper and the lower edges of the slot therein adapted to engage said rung, said securing member having an outer leg provided with a longitudinal slot registering with the longitudinal slot of the channel bar, and a bolt engaged through said slots of the channel bar and of the securing member to secure the parts in assembled relation on said side rail.

2. A ladder extension jack comprising a channel bar closed at the bottom and adapted to slidably engage the front and side faces of a side rail of a ladder, a securing member of substantially U-form in plan disposed transversely of the channel bar having a front leg engaging the web of the channel bar, a rear leg adapted to engage the inner face of said side rail, said front leg being provided with a longitudinal slot and the channel bar being provided with a longitudinal slot intersecting the longitudinal slot of the securing member, a bolt engaged through both slots having the head engaged against the inner face of said web of the channel bar, a tail nut on said bolt engaged against the front leg of the securing member, the rear leg of the securing member being provided with a longitudinal slot to receive a rung of the ladder, and flanges on the rear leg above and below said slot thereof adapted to engage said rung.

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