Jan. 8, 1946. C. A. DIVIL 2,392,527

LADDER LEVELING DEVICE

Filed July 28, 1944

Fig. 1.

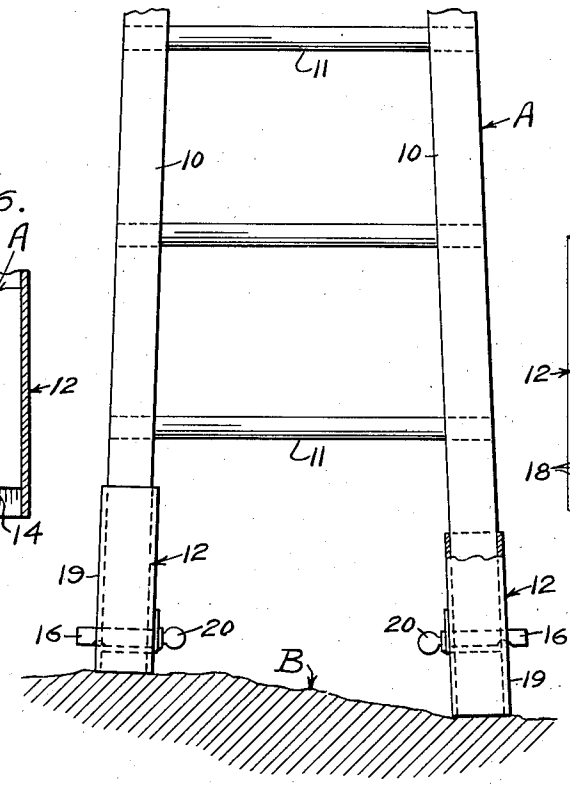


Fig. 6.

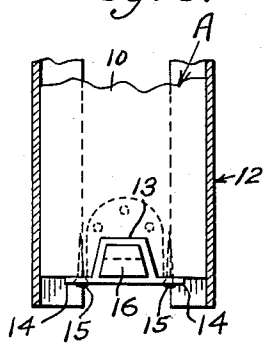


Fig. 3.

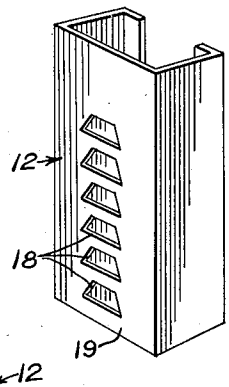


Fig. 2.

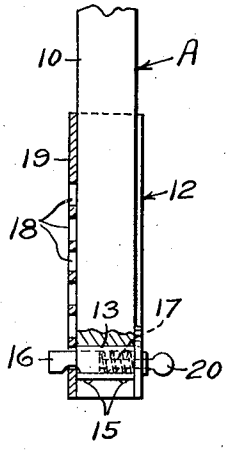


Fig. 4.

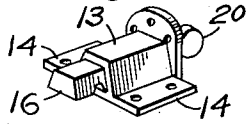
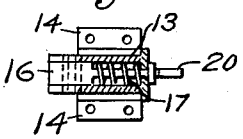


Fig. 5.



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LADDER LEVELING DEVICE

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Application July 28, 1944, Serial No. 547,016

1 Claim. (Cl. 228—63)

The invention relates to a ladder attachment, and more especially to a ladder leveling device.

The primary object of the invention is the provision of a device of this character, wherein a ladder when erected on unlevel ground can be supported in a workable level position, to assure safety against falling or injury to a user thereof when standing upon the ladder.

Another object of the invention is the provision of a device of this character, wherein the side member of a ladder can be lengthened or shortened, so that the same can be brought to a level position, when it is positioned on an uneven foundation, the device being of a novel construction, and can be firmly and securely held in adjusted position.

A further object of the invention is the provision of a device of this character, wherein firm anchorage can be had when standing the ladder on a foundation, so that such ladder will not tilt or fall over while in use, the device being unique and is susceptible of a maximum range of adjustment.

A still further object of the invention is the provision of a device of this character, which is simple in construction, thoroughly reliable and efficient in operation, strong, durable, sturdy in its make-up, readily and easily adjusted, assuring safety in the use of a ladder, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which shows the preferred embodiment of the invention, and pointed out in the claim hereunto appended.

In the accompanying drawing:

Figure 1 is a fragmentary elevation of a ladder showing the device constructed in accordance with the invention installed thereon.

Figure 2 is a fragmentary elevation of one side member of the ladder, with the device applied and partly broken away.

Figure 3 is a perspective view of the extensible piece of the device.

Figure 4 is a perspective view of the latch member therefor.

Figure 5 is a horizontal sectional view through the latch member.

Figure 6 is a fragmentary outer face view of one side member of the ladder with a portion of the device in vertical section.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates generally a portion of a rung ladder, having the side bars or members 10, and cross rungs 11, which fit therein in any suitable or well known manner, as is usual, these rungs 11 being used for steps to the ladder, as is customary.

The device constituting the present invention to form an attachment to the ladder, comprises a pair of longitudinally split or slitted extensible sleeve-like members 12, each being of a selected length to give the required range of adjustment thereto, and is adapted to slidably embrace the lowermost end portion of its companion side bar or member 10 of the ladder A, with the slit or split at the innermost face of such bar or member.

Counter-seated in the lowermost end of each bar or member 10 is a latch bolt housing 13, which has the laterally directed attaching ears 14, for receiving fasteners 15, which secure the housing counter-seated. Within the housing 13 is a spring pressed latching bolt 16, its spring being indicated at 17, and this bolt is urged to locking position for engaging in a keeper slot 18 of a series vertically arranged in spaced relation to each other in the outermost face 19 of the member 12, both on adjustment thereof properly level the ladder A when erected on uneven ground, to hold it in a level position for use.

The bolt 16 at the inner portion thereof is provided with a hand knob 20, so that the bolt can be retracted against the tension of the spring 17 for the convenient adjustment of the member 12 on the side bar or member 10 of the ladder A, when permitting the latter to be brought to a level condition on a foundation, ground or the like B, as best seen in Figure 1 of the drawing.

The bolts 16 firmly and securely lock the members 12 in their adjusted positions on the side bars or members 10 of the ladder, to assure perfect safety in the use of the same.

From the foregoing, it is thought that the construction and manner of operation of the device will be clearly understood, and therefore a more extended explanation has been omitted, for the sake of brevity.

Changes, variations and modifications may be made in the invention without departing from the spirit of the same or sacrificing any of its advantages, as fall properly within the scope of the appended claim.

What is claimed is:

A device for attachment to a ladder having side members, comprising a sleeve-like member

slidably fitting the lowermost end of each side member, one side of said sleeve-like member being provided with a vertical slot, the other side of said sleeve-like member being provided with a series of vertically arranged slots, the lower ends of said side members being countersunk, a spring tensioned latching bolt mounted in said countersunk ends, the latching end of said bolt adapted to be received in and extend beyond said slots on the outer side of said side members, the knot end of said bolt adapted to be received in and extend beyond said vertical slot on the inner side of said side members, and a transverse slot positioned on the under side of said bolt adjacent the latching end thereof adapted to prevent the bolt from being removed from said slot while said ladder is being used.

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