

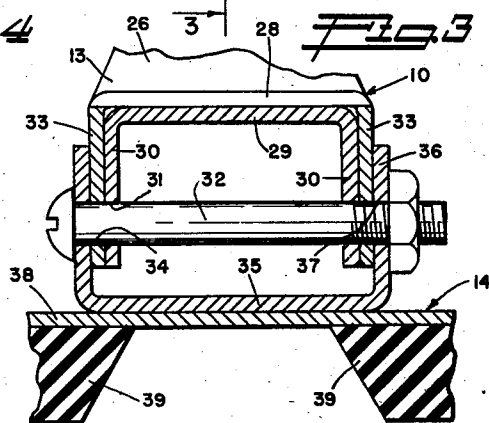
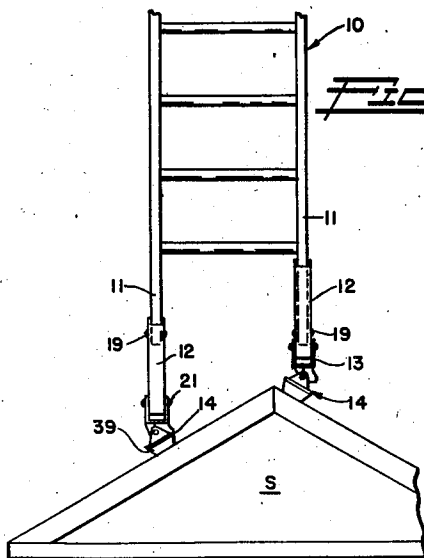
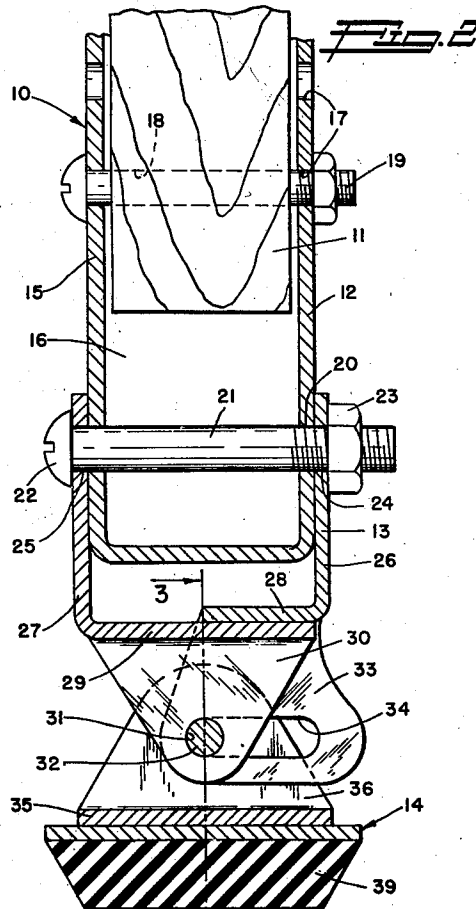
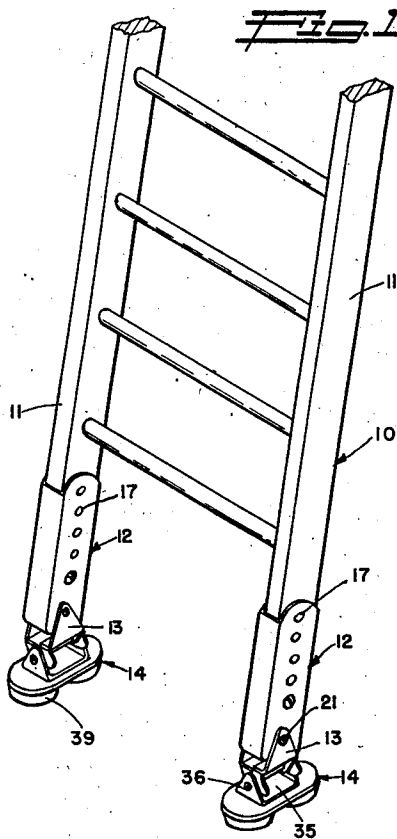
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SWIVELY MOUNTED LADDER STABILIZER

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SWIVELY MOUNTED LADDER STABILIZER

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4 Claims. (Cl. 228-63)

This invention relates to improvements in swivelly mounted ladder stabilizers.

The general object of the invention is to provide an improved apparatus for permitting a ladder to be stabilized in practically any position thereof.

A more specific object of the invention is to provide a novel ladder attachment for fitting on one or both legs of a ladder so that the ladder will be stable upon uneven surfaces thus reducing to a minimum the likelihood of a worker being injured due to the ladder slipping or falling.

Another object of the invention is to provide a novel swivelly mounted ladder foot member.

A further object of the invention is to provide a novel equalizer for the legs of a ladder.

A further object of the invention is to provide a novel ladder foot member that may be adjusted to any position to conform to uneven contours or sloping surfaces.

Other objects and advantages of my invention will be apparent from the following description taken in connection with the accompanying drawing, wherein:

Fig. 1 is an isometric view of the ladder stabilizers of my invention;

Fig. 2 is a longitudinal sectional view of one of the stabilizers;

Fig. 3 is a sectional view taken on line 3-3, Fig. 2, and

Fig. 4 is an elevational view of a ladder equipped with my stabilizers in position on a pitched roof.

Referring to the drawing by reference characters, I have shown my invention as embodied in a swivelly mounted ladder stabilizer which is indicated generally at 10.

As shown the device is adapted to be mounted upon a lower end of the rails or legs of a ladder 11. One of the devices embodied in my invention may be mounted upon each leg of the ladder or a device may be used on only one leg depending upon the condition of the support surface upon which the ladder rests.

The device 10 as shown includes a foot member or sleeve 12, a coupling member 13 and a support 14. The foot member includes sides 15 and ends 16. The sides 15 are provided with pairs of aligned holes 17. In use the foot member is slipped over the lower end of one of the rails of the ladder 11 which end is provided with an aperture 18, alignable with any one of the holes 17 in the foot member, and through the aligned holes a fastening member 19 such as a bolt is inserted and secured. The arrangement of spaced holes in the sleeve requires that only one aperture 18

be provided in the ladder to accomplish a large number of adjustments.

The sleeve 12 has a pair of aligned apertures 20 at the lower end thereof. These apertures receive a shaft member 21 which may be in the nature of a bolt with a head 22 and a nut 23. The shaft member 21 is supported in apertures 24 and 25 in legs 26 and 27 on plate members 28 and 29. The plate members overlap and may slide for adjustment to engage sleeves 12 of different sizes.

The lower plate member 29 is provided with a pair of depending legs 30 which are provided with aligned apertures 31 through which a pivot pin such as a bolt 32 extends. The plate member 28 has a pair of depending legs 33 which are provided with a slot 34 which receives pivot pin 32. The slot permits adjustment of the plate members to engage the sleeve member.

The pin 32 is mounted on the support 14 which includes a base member 35 having ends 36 which latter have apertures 37 receiving the pin 32. The base member 35 is mounted on the top of a support 38 which is provided with an anti-slip member such as a rubber pad 39.

In use one of the stabilizers is mounted upon the lower end of one of the legs of the ladder and if desired another stabilizer is mounted upon the other leg of the ladder.

The bolts 19 are then secured in place. The stabilizer may then be adjusted after which the bolts 22 and 32 are tightened so that the gripping member 39 will lie flat upon its support whether this support is inclined, tilted or otherwise uneven. The bolts may be tightened sufficiently to prevent movement of the stabilizer portions but I find that by merely tightening the bolts so that friction of the parts will hold them in their set position a worker can more readily adjust his ladder in different locations. As shown in Fig. 4, the ladder and swivel of my invention may be used on a sloping roof of a structure S. It will be seen that the rails or legs 11 of the ladder may be positioned at different depths in the sleeve 12 and that any desired angular position may be taken by the ladder.

From the foregoing description it will be apparent that I have invented a swivelly mounted ladder stabilizer which may be economically manufactured, is adjustable and easily mounted and does not readily get out of order.

Having thus described my invention, I claim:

1. A ladder stabilizer comprising a foot member adapted to engage the rail of a ladder, a coupling device including a pair of overlapping plate members disposed beneath said foot member, each

plate member having an end thereon overlapping the foot member, said ends and said foot member having aligned holes, a pivot pin passing through said holes, one of the plate members having a pair of depending legs thereon, said legs having aligned apertures, a second pivot pin passing through said apertures, the other plate member having legs provided with apertures receiving said second pivot pin and a support device including a base member, said base member having members thereon receiving said second pivot pin.

2. A ladder stabilizer comprising a foot member adapted to engage the rail of a ladder, a coupling device including a pair of overlapping plate members disposed beneath said foot member, each plate member having an end thereon overlapping the foot member, said ends and said foot member having aligned holes, a pivot pin passing through said holes, one of the plate members having a pair of depending legs thereon, said legs having aligned apertures, a second pivot pin passing through said apertures, the other plate member having legs provided with slots slidably receiving said second pivot pin and a support device including a base member, said base member having apertured ends receiving said second pivot pin, a support, said base being mounted on said support, and anti-friction means on the lower surface of said support.

3. A swivelly mounted ladder stabilizer comprising a support device, said support device including a member having gripping means on the lower face thereof, a base fixedly mounted on the support member, said base having a pair of upwardly extending ends, a shaft member mounted on said ends, a coupling device including a pair of overlapping plates, each plate having a pair of depending legs thereon, the legs on said plates

being pivotally mounted on said shaft, an end member projecting upwardly from each plate, a second shaft carried by said end members, a hollow sleeve member comprising a pair of spaced sides and spaced ends, said sides having aligned apertures receiving said second shaft, said sleeve member having an open top, a plurality of spaced apertures arranged in the upper portion of the sleeve member, a ladder rail arranged in the sleeve member, said ladder rail having a hole therethrough, and securing means passing through certain of said sleeve member apertures and said ladder rail hole.

4. A swivelly mounted ladder stabilizer comprising a support device, said support device including a member having gripping means on the lower face thereof, a base fixedly mounted on the support member, said base having a pair of upwardly extending ends, a shaft member mounted on said ends, a coupling device including a pair of overlapping plates, each plate having a pair of depending legs thereon, the legs on one plate being pivotally mounted on said shaft, the legs on the other plate each having a slot slidably receiving said shaft, an end member projecting upwardly from each plate, a second shaft carried by said end members, a hollow sleeve member comprising a pair of spaced sides and spaced ends, said sides having aligned apertures receiving said second shaft, said sleeve member having a closed bottom and an open top, a plurality of spaced apertures arranged in the upper portion of the sleeve member, a ladder rail arranged in the sleeve member, said ladder rail having a hole therethrough, and securing means passing through certain of said sleeve member apertures and said ladder rail hole.

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