United States Patent

[11] 3,618,703

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[54] **OUTRIGGER SUPPORTS FOR LADDERS**
3 Claims, 2 Drawing Figs.

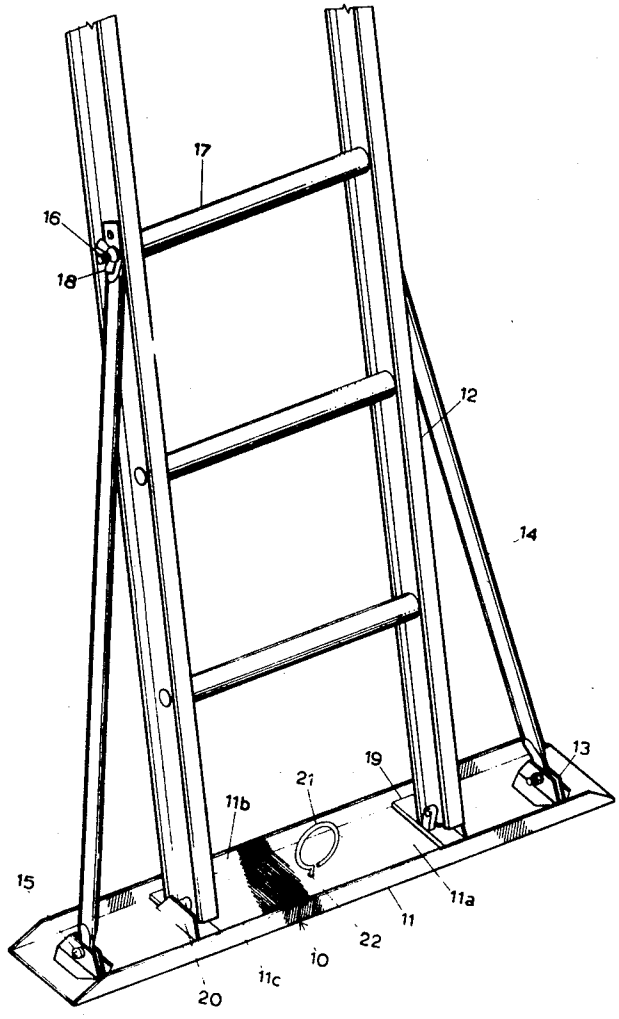
[52] **U.S. Cl.** **182/107**
[51] **Int. Cl.** **E06c 5/36**
[50] **Field of Search** 182/107, 108

[56] **References Cited**
UNITED STATES PATENTS

776,446	11/1904	Williamson	182/107
1,676,618	7/1928	Morris	182/107
1,918,293	7/1933	Seiler	182/107
2,868,427	1/1959	Hess	182/107

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ABSTRACT: A stabilizing safety attachment for ladders and having an elongate base channel extending across and beyond lower end of the legs of the legs of the ladder. The web material of the base channel is bent upwardly to provide lower attachment flanges for pivotal brace members extending upwardly and inwardly therefrom to attachment at the legs of the ladder by a threaded stud extending through a rung of the ladder. The device also has a pair of upturned retainer tabs formed from the web of the base channel for preventing lateral movement of the legs of the ladder in the base channel.



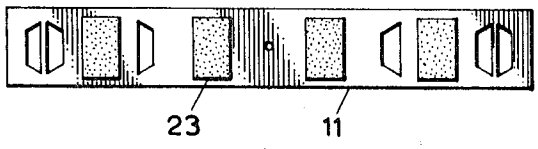


Fig. 2

Fig. 1

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OUTRIGGER SUPPORTS FOR LADDERS

BACKGROUND OF THE INVENTION

This invention relates to new and useful improvements in outrigger supports for use with ladders.

Metal ladders, particularly aluminum ladders have come into widespread general use for both indoor and outdoor work principally because of the ease in handling by virtue of the light weight. The aluminum ladders, particularly the relatively long ones and the extension type are generally subject to some swaying from side to side. Furthermore, all ladders, even those equipped with pivotal feet are subject to tipping and slipping. While several stabilizing attachments are known as shown in U.S. Pat. Nos. 1,676,618; 2,868,427; and 3,012,628, such devices have not met with general acceptance due primarily to the relatively complex and cumbersome nature of the devices as well as the questionable effectiveness of same.

SUMMARY OF THE INVENTION

My invention generally comprises a very simple and inexpensive outrigger support for ladders which is effective in preventing slipping, tipping and sidesway. The outrigger support is positively attached to the ladder by threaded attaching stud extending through the legs of the ladder.

The construction design is very simple and inexpensive in that the attaching flanges for the lower end of the outrigger braces are integrally formed from the web portion of the base channel.

The legs of the ladder are maintained in proper position in the base channel by the upwardly turned edges of the channel and retainer tabs formed integrally from the web portion of the base channel.

Other features and advantages of my invention will be apparent from the following detailed description taken in conjunction with the accompanying drawings showing a preferred embodiment of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of an outrigger support attached to an aluminum ladder.

FIG. 2 is a bottom view of the base channel of the outrigger support illustrated in FIG. 1 showing the nonskid pads on the bottom thereof.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now more particularly to the drawings wherein like numerals refer to like parts in both views, my outrigger support is generally referred to by numeral **10** in FIG. 1 and comprises a base channel **11** having a web **11***a* connecting a pair of upturned edges **11***b* and **11***c*. The base channel extends across and outwardly beyond the legs of the aluminum ladder **12**. A pair of attaching flanges **13** is formed from the web **11***a* at each end of the base channel by cutting the web material and bending it to an upright position as shown in FIG. 1.

Outrigger braces **14** are pivotally secured at their lower ends between each pair of attaching flanges by screws **15** for

pivotal movement about an axis lying along the length of the base channel so that the base channel will lie flat on the supporting surface regardless of the ladder angle. The outrigger braces extend inwardly and upwardly from their lower points of attachment. The upper ends of the braces are attached to the legs of the ladder by an elongated threaded stud **16** extending through a rung **17** of the ladder. The stud may be secured by a wingnut such as shown at **18** in FIG. 1.

The legs of the aluminum ladder which typically have foot plates such as are shown at **19** pivotally attached to the bottom ends thereof are maintained in the base channel by the edge flanges **11***b* and **11***c* of the channel and by a pair of laterally spaced upturned retainer tabs **20** formed from the web material in the same manner as the attaching flanges **13**. The retainer tabs engage against the sides of the pivotal foot plates of the ladder.

When the ladder is to be used outdoors on the ground surface a ring pin such as shown at **21** may be inserted into a hole **22** formed in the web of the base channel and stuck into the ground for preventing slippage of the outrigger unit.

When the ladder is to be used on a surface in which a ring pin cannot be inserted, high-friction rubber pads **23** secured to the bottom of the web portion of the base channel as shown in FIG. 2 prevent slippage of the unit on the supporting surface.

It is understood that my invention is not confined to the particular construction and arrangement of parts herein illustrated and described, but embraces all such modified forms thereof as come within the scope of the following claims.

I claim:

1. In combination with a ladder having a pair of pivotal foot plates on the legs thereof, an outrigger support comprising:
   a. an elongate base channel having a pair of edge flanges connected by a web, said base channel receiving the foot plates of said ladder and extending across and outwardly beyond the legs of the ladder,
   b. a pair of attaching flanges formed from said web at each end of said base channel,
   c. a pair of outrigger braces, each of said braces being pivotally attached at its lower end between the attaching flanges comprising one of said pairs for pivotal movement about an axis lying along the length of said base channel, said braces extending inwardly and upwardly from their lower ends,
   d. means for securing the upper ends of said outrigger braces to the legs of said ladder above said base channel, and
   e. a pair of laterally spaced upturned tabs formed from the web of said base channel for retaining the legs of the ladder against lateral movement in said base channel.

2. The outrigger support for ladders as specified in claim 1 wherein said means for securing the upper end of said outrigger braces to the legs of the ladder comprise an elongate threaded stud extending from one leg of the ladder to the other through a rung of the ladder.

3. The outrigger support for ladders as specified in claim 1 having a high-friction surface pad secured to the underside of the web of said base channel.

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