July 3, 1962 C. L. BUTLER 3,042,142

STEP-LADDER ATTACHMENT

Filed Aug. 25, 1959

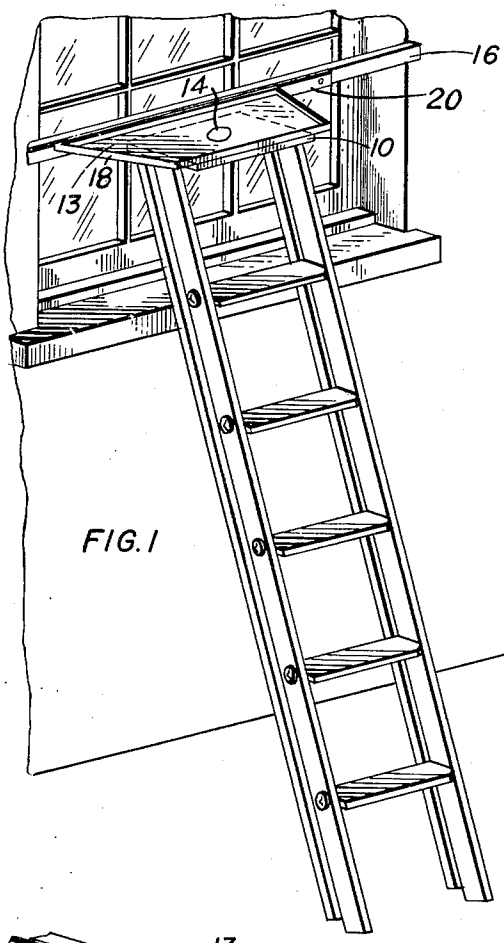



FIG. 1

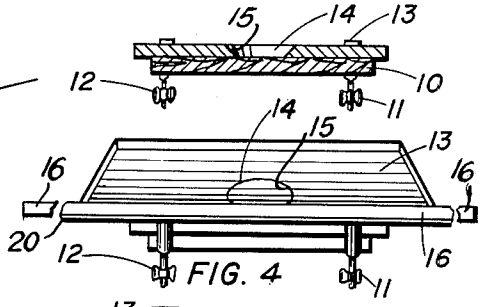



FIG. 3

FIG. 4

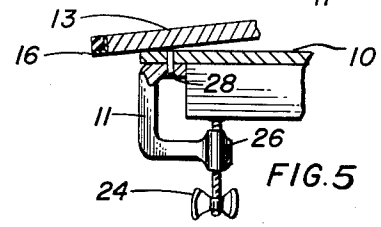



FIG. 5

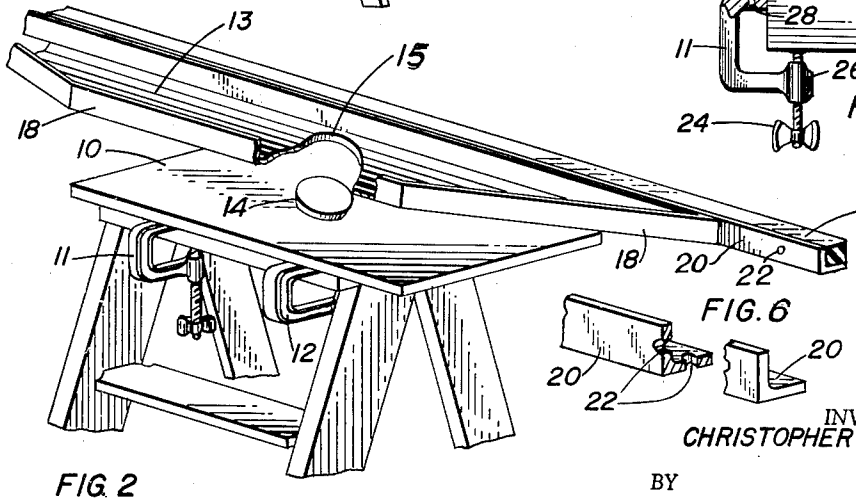



FIG. 2

FIG. 6




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# STEP-LADDER ATTACHMENT

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This invention relates to step-ladder stabilizing attachments particularly for use on uneven surfaces, over windows and the like, and in particular a work or tool holding tray mounted by a swivel connection on a panel clamped to the head of a step-ladder, and a bar attached to the extended edge of the tray for bridging the sides of a window frame whereby a step-ladder may be used on the outside of a window, or on an uneven surface with safety.

The purpose of this invention is to provide a step-ladder support or attachment that makes it possible to use a step-ladder on uneven surfaces or over windows and the like with safety.

Various types of attachments have been provided for ladders, step-ladders, and the like. In some instances extensions have been connected to legs of ladders to compensate for uneven ground, and various types of braces have been used on upper ends of ladders. However, it is difficult to adjust such devices so that the ladders may be used with safety.

With this thought in mind this invention contemplates a bar attached to a tray mounted by a swivel on the upper end of a step-ladder whereby the tray or bar twists to correspond with an uneven surface so that with a little adjustment the ladder assumes a rigid and safe position.

The object of this invention is, therefore, to provide a leveling attachment for a step-ladder in which the attachment is mounted by a swivel connection to the head or upper end of the step-ladder.

Another object of the invention is to provide a stabilizing attachment for a step-ladder that is designed to be installed on step-ladders now in use, and without changing the step-ladder.

A further object of the invention is to provide a tool holding and stabilizing attachment for a step-ladder in which the attachment is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a panel having a C-clamp, or clamps thereon for mounting the panel on the head of a step-ladder, a work or tool tray mounted on the panel by a swivel connection, and a bar removably connected to an extended edge of the tray.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings, wherein:

FIGURE 1 is a perspective view showing a step-ladder with the attachment of this invention on the upper end and with a bar attached to a tray of the attachment that may be extended across a window frame;

FIGURE 2 is an exploded view of the step-ladder and attachment partly broken away and partly in section, showing a tray of this attachment spaced above a panel mounted on the head of a step-ladder;

FIGURE 3 is a longitudinal section through the step-ladder attachment showing the swivel connection between the tray and the panel that is to be clamped on the head of a step-ladder;

FIGURE 4 is a perspective view looking toward the front of the attachment with parts of the supporting bar and the angle bar on the extended edge of the tray being broken away;

FIGURE 5 is a fragmentary detailed sectional view through one side of the attachment showing the panel clamped to the head of the step-ladder and with parts broken away, and



FIGURE 6 is a detailed sectional view of the angle bar of the attachment with parts of the bar being broken away.

Referring now to the drawing wherein like reference characters are used to designate like parts the safety attachment for the step-ladder of this invention includes a panel **10** having clamps **11** and **12** depending therefrom, a tray having an opening therein with a beveled edge **15** that is positioned to receive a frustro-conical-shaped stud **14** extended from the panel **10**, an L-shaped bar **20** secured to the extended edge of the tray **13** and a bar **16** of sufficient length to bridge across a window frame, that may be received in and removably secured to the L-shaped bar **20**.

The panel **10** is of sufficient size to be clamped upon a head or top platform of a step-ladder, as shown in FIGURE 2, by the clamps **11** and **12**. With the panel **10** nested on the step-ladder the stud **14** extends upwardly from the upper surface of the panel **10**, and with the opening having the beveled edge **15** of the tray **13** positioned over the stud **14** a swivel joint is provided whereby with the parts in position, and with the upper end of the step-ladder placed against an uneven wall surface the tray will twist finding a correct position so that the step-ladder will be rigidly held or stabilized.

The tray **13** is of trapezoidal shape, and the edges are provided with molding strips **18** to prevent tools from sliding from the tray. The L-shaped or angle bar **20** is provided with openings **22** for nails or the like and the solid bar **16** is adapted to be removably positioned in the bar **20** and secured thereto by the nails which enter the openings **22** in the bar **20**, the bar **20** being secured to the long side of the tray **13** by welding or the like.

The C-clamps are provided with thumb screws **24** which are threaded in a hub **26**, and upper ends of the clamps are secured to the panel **10** by rivets or fasteners **28** as shown in FIGURE 5.

In use the attachment may be mounted directly on the upper platform or head of a step-ladder by the clamps **11** and **12**, or particularly with the bar **16** removably attached to the bar **20** the bar **16** can be removed from the bar **20** so that the attachment may be carried in a tool box or kit and applied to a step-ladder or the like as desired.

With the attachment in place the step-ladder may be positioned on uneven ground and the tray **13** placed against a wall surface. Should the ground or wall surface be uneven the swivel connection of the tray will permit the tray to turn until it fits snugly against the surface. By this means the possibility of injury to a person using the step-ladder is substantially eliminated.

It will be understood that modifications within the scope of the appended claims may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. An attachment for a ladder comprising a panel, clamps secured to the undersurface of the panel for mounting the panel on the head of a step-ladder, an inverted frustro-conical-shaped stud extended upwardly from the panel, a tray having an opening therein provided with a beveled edge formed to coact with the stud for providing a swivel mounting of the tray on the panel, said tray being of trapezoidal formation and having an L-shaped bar secured to a long edge thereof and a solid bar adapted to be removably poistioned in said L-shaped bar whereby said bar will bridge a window frame when said step-ladder and said attachment are positioned in operational engagement with said window frame.

2. In a step-ladder accessory, the combination which comprises, a panel having clamps for mounting the panel on the head of a step-ladder, a trapezoidal tray positioned

on the panel and connected thereto by a swivel joint, an L-shaped bar secured to the long side of the tray and a solid bar adapted to be positioned in said L-shaped bar and removably secured thereto.

3. In a step-ladder attachment, the combination which comprises a rectangular-shaped panel having C-clamps extended from the lower surface and a frustro-conical-shaped stud extended upwardly from the upper surface, the large end of the stud being spaced from the upper surface of the panel, a tray having a molding on the peripheral edge thereof and an inverted frustro-conical-shaped opening therein mounted on the panel and positioned with the stud in the opening providing a swivel



connection between the panel and tray, an L-shaped bar secured to the long side of the tray and a bar positioned in said L-shaped bar and removably secured thereto.

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