Dec. 16, 1947. C. E. MANN 2,432,781

LADDER ATTACHMENT

Filed Feb. 27, 1946

Fig. 1.

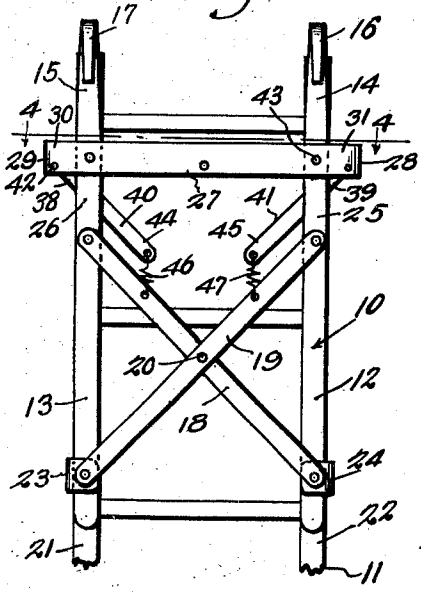


Fig. 2.

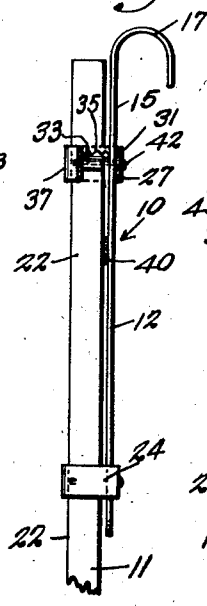


Fig. 3.

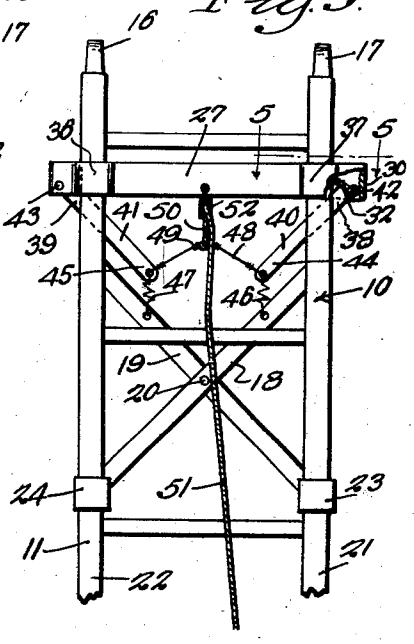


Fig. 6.

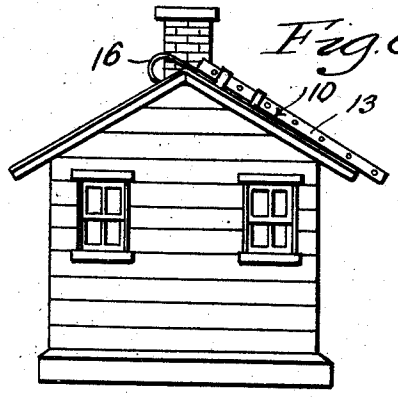


Fig. 4.

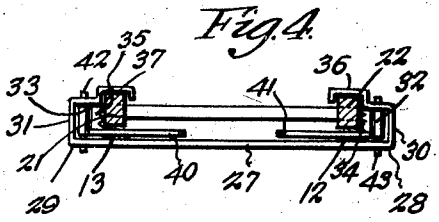


Fig. 7.

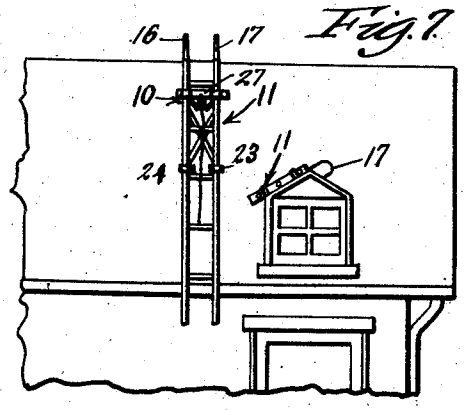
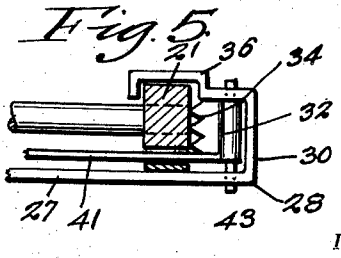


Fig. 5.



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UNITED STATES PATENT OFFICE

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LADDER ATTACHMENT

Cecil E. Mann, Pontiac, Mich.

Application February 27, 1946, Serial No. 650,539

1 Claim. (Cl. 228—51)

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The invention as described herein, and illustrated in the accompanying drawings, consists of an attachment for ladders, an object of which is to provide means whereby a ladder may be held in any desired position.

Another object of the invention is to provide slidable ladder hooks automatically locked in any position upon a ladder.

A further object of this invention is to provide a pair of ladder hooks and means whereby a ladder may be slidably adjusted relative thereto.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is an elevational view of the device shown attached to the end of a ladder,

Figure 2 is a side elevational view thereof,

Figure 3 is a view similar to Figure 1 from the reverse side thereof,

Figure 4 is a sectional view on line 4—4 of Figure 1,

Figure 5 is an enlarged sectional view taken on line 5—5 of Figure 3,

Figures 6 and 7 are diagrammatic views illustrating applications of the device.

While one embodiment of the invention is illustrated in the above referred to drawings, it is to be understood that they are merely for the purpose of illustration and that various changes in construction may be resorted to in the course of manufacture in order that the invention may be utilized to the best advantage according to circumstances which may arise, without in any way departing from the spirit and intention of the device, which is to be limited only in accordance with the appended claim. And while there is stated the primary field of utility of the invention it remains obvious that it may be employed in any other capacity wherein it may be found applicable.

In the accompanying drawings, and in the following specification, the same reference characters are used to designate the same parts and elements throughout and in which 10 refers to the invention in its entirety and 11 indicates a ladder on which is mounted the hook attachment 10, which consists of a pair of spaced side supports 12 and 13 to the upper ends 14 and 15 of which are fixedly secured hooks 16 and 17. The supports 12 and 13 are connected by cross braces 18 and 19 secured centrally together at 20. The said members 12 and 13 seat upon the rails 21 and 22 of a ladder 11 and are secured to said rails by cuffs 23 and 24 which engage said rails

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slidably. The upper ends 25 and 26 of the members 12 and 13 are connected by a cross head 27, the ends 28 and 29 of which extend beyond the rails 21 and 22 and are returned to form bearings 30 and 31 for jaws 32 and 33 mounted within said bearings and are provided with teeth 34 and 35 for engaging said rails 21 and 22, whereby the attachment 10 may be fixedly held to the ladder at any desired position thereon. The terminals 36 and 37 of the member 27 extend inwardly from the bearings 30 and 31 and are looped over the said rails 21 and 22. These members 23 and 24, 36 and 37 hold the attachment securely to the ladder.

The jaws 32 and 33 are fixed to the ends 38 and 39 of the lever arms 40 and 41 which are pivoted at 42 and 43 to the said bearings 30 and 31 and their lower ends 44 and 45 are connected to springs 46 and 47, the other ends of which are attached to the cross braces 18 and 19, whereby the said jaws 32 and 33 are normally held into biting relation with the said rails 21 and 22. Connected to the lower ends 44 and 45 of the members 40 and 41 is a cable 48, to the center 49 of which is fixed to one end 50 of a cable 51 by means of which the said ends 44 and 45 may be drawn up to release jaws 32 and 33 from the ladder rails whereby the member 10 may be adjusted to a desired position on the ladder. The cable 51 operates over a pulley 52 which is attached to the cross head 27.

From the foregoing it will be seen that I have provided an attachment for ladders which may be easily manipulated to adjust itself to the ladder whereby the ladder may be secured to any part of a building, roof, gable, dormer window or any other portion of a building desired.

From the foregoing specification it will become apparent that the invention disclosed will adequately accomplish the functions for which it has been designed and in an economical manner and that its simplicity, accuracy and ease of operation are such as to provide a relatively inexpensive device considering what it will accomplish and that it will find an important place in the art to which it appertains when once placed on the market.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Changes in shape, size and rearrangement of details and parts such as come within the pur-

view of the invention claimed may be resorted to, in actual practice, if desired.

Having now described the invention that which is claimed to be new and desired to be procured by Letters Patent is:

In combination with a ladder and a remotely controlled ladder attachment slidably supported thereon including a pair of parallel extending side supports adapted to slidably engage the rear edges of the ladder rails, crossed braces connected between said side supports, U-shape ladder rail engaging cuffs on the lower ends of said side supports, a cross head secured transversely to the upper ends of said side supports being bent forwardly at right angles to form bearing housings extending laterally of the ladder rails, toothed ladder engaging dogs pivotally mounted in said bearing housings having inwardly directed actuating handles on their inner ends, resilient means connected between said handles and resiliently holding said toothed ladder engaging dogs in position to engage the sides of the ladder when said attachment is applied thereto, a release rope attached to said handles, and U-shape guide housings formed at right angles to said bearing housings adapted to extend over the forward edges of the ladder when said attachment is in operative position.

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