J. N. FARNHAM.

LADDER ATTACHMENT.

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1,066,892.

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Fig. 1.

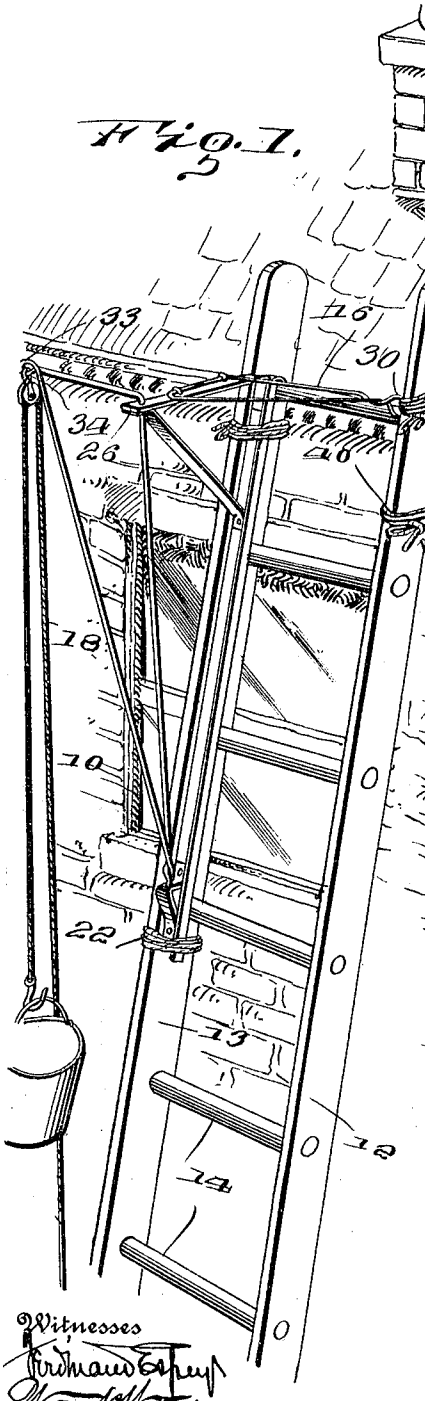


Fig. 2.

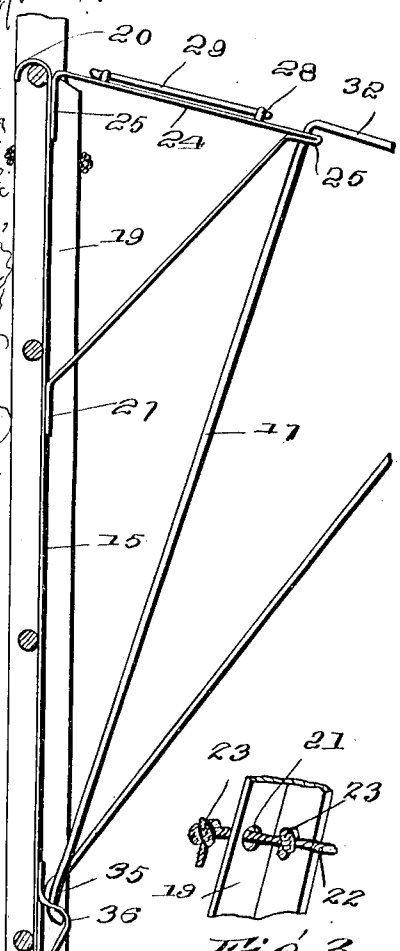


Fig. 3.

Witnesses

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LADDER ATTACHMENT.

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To all whom it may concern:

Be it known that I, JEREMIAH N. FARNHAM, a citizen of the United States, residing at Rockland, in the county of Knox and State of Maine, have invented certain new and useful Improvements in Ladder Attachments, of which the following is a specification.

My invention relates to new and useful improvements in attachments for ladders and more particularly to ladder brackets, and the object of my invention is to provide a bracket for attachment to a ladder and by means of which the ladder and bracket may be employed for hoisting purposes.

A further object of my invention is to provide a bracket which may be readily attached to or detached from a ladder and which may be employed in hoisting plaster, shingles, or other building materials to various parts of a building, thereby doing away with the necessity of building a special frame for holding the block and tackle employed or of carrying the materials up the ladder manually.

A further object of my invention is to provide a ladder bracket which may be attached with equal facility to either side of the ladder and to provide means for bracing and holding the bracket against swinging movement when so attached.

A still further object of my invention is to provide a ladder bracket adapted for attachment to a ladder and having a swinging crane arm which may be swung to one side and to which the block and tackle may be attached. And a still further object of my invention is to provide a device of the character described which, when removed from the ladder, may be readily folded together into compact form for transportation.

With these and other objects in view, my invention will be more fully described, illustrated in the accompanying drawing, and then specifically pointed out in the claims which are attached to and form a part of this application.

In the drawing: Figure 1 is a fragmentary perspective view of a conventional form of ladder, showing my ladder bracket applied thereto and in use; Fig. 2 is a longitudinal sectional view of a ladder, showing the ladder bracket in place, the crane arm being swung to inoperative position to better show its structure; Fig. 3 is a fragmentary sectional view of the body member of the bracket, showing the manner of attaching the lashing cords thereto.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

In order to clearly show the application and operation of my improved device, I have illustrated it as employed in raising mortar to an upper window 10 of a building 11, the device being applied to a ladder 12 including spaced side members 13 and transversely extending spaced rungs 14.

My ladder bracket consists primarily of an L-shaped frame 15, one arm of which is adapted for attachment to the ladder, a substantially triangular shaped frame 16 swingingly secured to the other arm and also adapted for attachment with the ladder to prevent the swinging of the L-shaped frame thereon, and a second triangular shaped frame 17 swingingly mounted between the free ends of the arms of the first frame and forming a swinging crane arm adapted to support the block and tackle, conventionally shown at 18.

The main frame of my device is formed of metal and includes a body portion 19 preferably formed of angle iron or channel iron for the sake of added strength and having its flange or flanges, as the case may be, cut-away at one end to leave an extended web portion which is bent into the form of a hook, as shown at 20 for engagement over one of the rungs of the ladder. The web portion of this body portion is provided at its ends with perforations 21 through which are passed cords 22 which are knotted, as shown at 23 adjacent each side of the web to prevent their disengagement therefrom, and the free ends of which are lashed about one of the side members of the ladder when the bracket is in place.

A bar of metal 24 is secured by one end to the forward face of the web of the body member 19, as shown at 25 and is extended outwardly to form the second arm of the L-shaped frame previously mentioned, this arm extending at such an angle to the body member 19 that when the device is attached to a ladder and the ladder leaned against a wall in the usual manner, this arm extends substantially in a horizontal position. The end portion of this bar 24 is bent upon itself to form a double bearing 26 and is then ex-

tended downwardly and inwardly and secured by its terminal to the web of the body member, as shown at 27.

The arm 24 carries spaced eyes 28 and swingingly mounted through these eyes is one side 29 of the triangular frame member 16. This frame is preferably formed from a single rod of metal having one end bent at right angles to the portion 29 and having its other end bent toward the first and secured thereto, the ends being preferably secured to each other by twisting one about the other. One of the terminals is further bent to form an eye 30 through which is passed a cord 31 by means of which the free end of the frame member 16 may be lashed to the opposite side member of the ladder, as shown in Fig. 1. This cord is also preferably passed about that rung of the ladder engaged by the hook 20 to still further assist in supporting the bracket and also to prevent the total disengagement of the upper portion of the bracket from the ladder in case the hook 20 breaks or becomes disengaged from the rung. As will be readily seen, this triangular frame 16 braces the main frame 15 against all swinging upon the ladder.

The crane arm or second triangular frame 17 is also formed from a single rod of metal which is passed through a perforation formed in the double bearing 25 of the L-shaped frame and one end of which is bent at right angles to the body, as shown at 32. This end is further bent intermediate its length to form an eye 33 for the reception of the hook 34 of the tackle block and is then extended to the opposite end of the rod and twisted about the same, as shown at 35. The free end of the body portion of the frame 17 is passed through a perforation formed in a bracket 36 of metal, secured to the lower end of the body member 19 and is bent, as shown at 37 to prevent disengagement therefrom. By this means, the frame member 17 is swingingly mounted between the terminals of the arms of the L-shaped frame 15 and may be readily swung to extend to either side of the ladder.

Although I have described the use of cords or cables lashed about the side members of the ladder as the means of securing the bracket in place, it will of course be understood that clamps or any other suitable device may be employed instead, my preference for the cords being due to the fact that they will work equally as well upon all styles of ladders, while a clamp would work on one ladder but might not on another.

As will be seen the bracket may be applied upon either side of the ladder with equal facility. When the bracket is employed for raising articles of any comparative weight, the ladder may be lashed as shown at 38 by a screw eye 39 inserted in the wall of the building and a cable 40 passed through the eye and lashed about that side of the ladder opposite the side to which the bracket is attached, this lashing preventing the swinging or turning of the ladder under the side strain of the load. If used in connection with a scaffold, the ladder of course may be lashed directly to the scaffold without the employment of the eye 39. When not in use, the bracket may be readily removed from the ladder and the frame 17 may be folded against the frame 15 and the frame 16 extended to lie in a plane with the frame 15 when the device will occupy but little space.

The foregoing description, taken in connection with the drawing clearly discloses the operation of my invention and any further description of the same is therefore unnecessary.

Having thus described the invention, what is claimed as new is:

1. In a device of the character described, the combination with a ladder, of an L-shaped frame, means for attaching said frame to one side of the ladder, a brace frame swingingly connected to one arm of the L-shaped frame, means for attaching said brace frame to the opposite side of the ladder to prevent swinging of the L-shaped frame, and a crane arm swingingly mounted in the terminals of the arms of the L-shaped frame.

2. In a device of the character described, the combination with a ladder, of an L-shaped frame, means carried by the frame for attachment to the ladder, a brace frame extending at right angles to the L-shaped frame, means for attaching the brace frame to the ladder, and a substantially triangular shaped frame swingingly mounted in the free ends of the L-shaped frame.

3. A ladder attachment including an L-shaped frame, a triangular frame mounted to swing in the terminals of the arms of the first frame, and a second triangular frame swingingly mounted on one arm of the L-shaped frame.

4. A ladder attachment including a body member provided at one end with a hook, an arm extending laterally from the body member and braced thereto, a bearing bracket secured to the free end of the body member, a crane arm mounted to swing in the free end of the laterally directed arm and the bearing bracket, means for attaching the body member to a support, and means for preventing the swinging of the body member upon the support.

5. A ladder attachment including an L-shaped frame, a crane arm mounted for swinging movement in the arms of said frame, means carried by one arm of the frame for securing the frame to a support,

eyes carried by the other arm of the frame, and a second frame swingingly mounted in said eyes and adapted to be secured to the support to brace the first frame against swinging thereon.

6. A ladder attachment including an L-shaped frame, one arm of which is adapted for attachment to a ladder, a second frame carried by the other arm of the first frame and also adapted for attachment to a ladder, and a triangular frame mounted for swinging movement in the arms of the L-shaped frame and including a side extending in the plane of one of the arms and formed with a loop.

7. A device of the character described including frames swingingly connected to each other and each adapted for attachment to a ladder, and a crane arm carried by one of the frames.

8. A device of the character described including frames swingingly connected to each other, one of said frames being adapted for longitudinal attachment to a ladder, the other of said frames being adapted for transverse attachment to the ladder, and a crane arm swingingly mounted upon the first of said frames.

In testimony whereof I affix my signature in presence of two witnesses.

JEREMIAH N. FARNHAM. [L. S.]

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."