E. C. KRAHL.

LADDER ATTACHMENT.

APPLICATION FILED JULY 26, 1919.

1,386,511.

Patented Aug. 2, 1921.

Fig. 1.

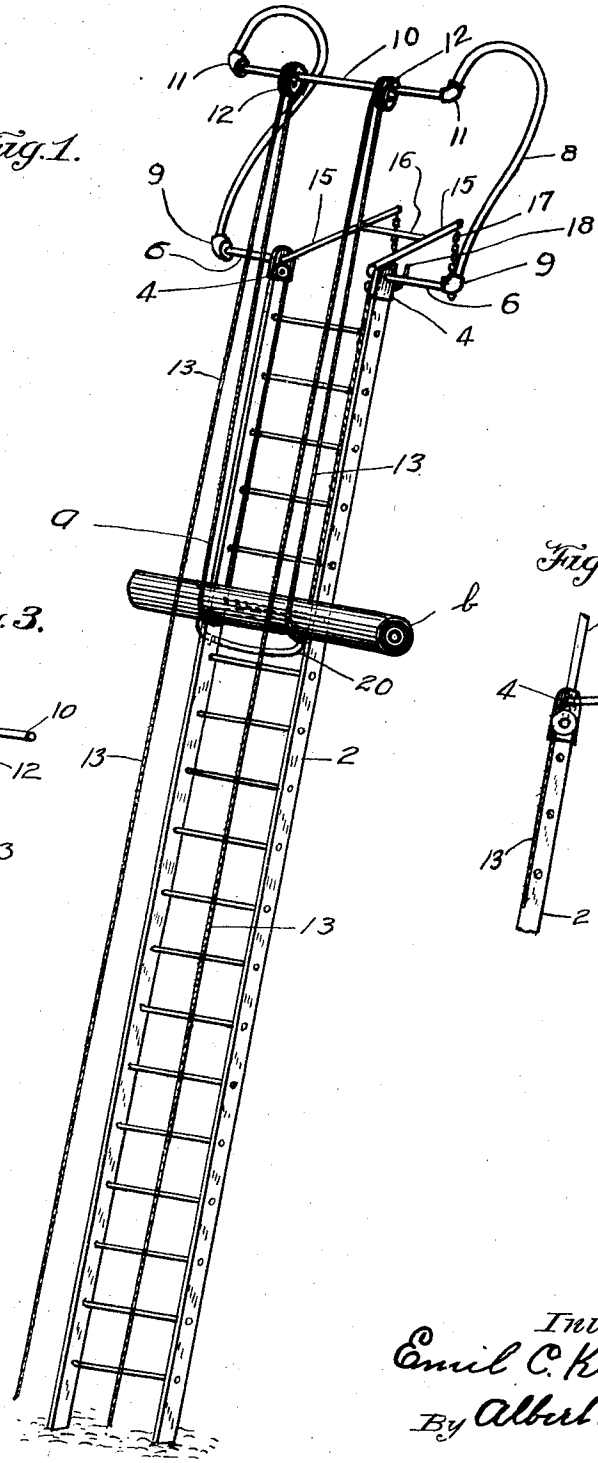


Fig. 3.

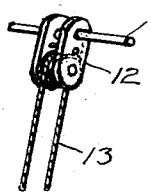
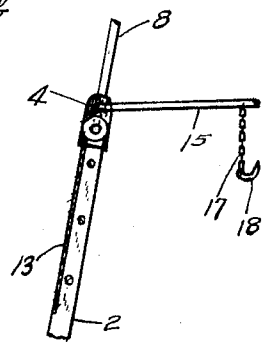


Fig. 2.



Inventor.

Emil C. Krahl

By Albert E. Lynch

Attorney

UNITED STATES PATENT OFFICE.

EMIL C. KRAHL, OF CLEVELAND, OHIO.

LADDER ATTACHMENT.

1,386,511. Specification of Letters Patent. Patented Aug. 2, 1921.

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To all whom it may concern:

Be it known that I, EMIL C. KRAHL, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Ladder Attachments; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to new and useful improvements in hoisting devices, and particularly to a hoisting device which can be readily attached to the upper end of a ladder.

The object of this invention is to provide a hoisting device of this character which will be particularly adapted for hoisting roofing material, such as rolls of tar paper and the like.

Another object of this invention is to provide a device of this character which can be cheaply manufactured and which will be very light in weight so that when mounted on a ladder the ladder can be readily moved from place to place as desired.

My invention therefore consists in the features of construction and combination of parts hereinafter described in the specification, pointed out in the claim and illustrated in the accompanying drawing.

Referring to the accompanying drawing, Figure 1 is a view in perspective showing a ladder with my improved hoist mounted thereon. Fig. 2 is a detail view showing the upper part of the ladder in side elevation. Fig. 3 is a detail view showing one of the pulleys.

Again referring to the drawings 2 represents a ladder of the usual construction. On the upper end of each of the side members of the ladder is arranged a cap or a base member 4 which is rigidly secured thereto in any suitable manner. From the outer side of each base member a pipe or rod 6 extends outwardly and horizontally, and from the end of each pipe 6 the side members 8 of the derrick extend upwardly. These members 8 are in the form of a large crook, and the upper ends thereof are arranged to project forwardly and overhang the upper portion of the ladder. These members 8 are preferably formed of pipe sections and are connected with the members 6 by commercial fittings, shown at 9. A cross member 10 extends between the upper ends of the members 8, and this member is also preferably formed of a section of pipe and is secured to the members 8 by fittings 11. On the member 10 is arranged a pair of pulley blocks 12. Two hoisting ropes or cables 13 are provided, and the ends of the said ropes are secured to the cap or base members 4. The ropes are then carried up through the pulleys 12 and down on the front side of the ladder to the ground. A bar 15 extends rearwardly from each cap or base member 5 and these bars are preferably connected by a cross-bar 16 and form a receiving platform at the upper end of the ladder. Chains 17 which are provided with hooks 18 are secured to the ends of the bars 15 and provide means for anchoring or securing the platform to the roof of a building when desired.

When starting to operate the device sufficient slack is permitted to feed back through the pulleys so that the ropes will extend down from the caps or base members 4 to the ground, then up over the pulleys and down to the ground again. A loop or sling is thus formed indicated by the letter *a*, and in this loop or sling is placed the roll of roofing material shown at *b*, which is to be hoisted. Then by pulling down on the free ends of the ropes the sling is caused to move upwardly, the roll of roofing material traveling on the ladder as a guide or support. When the roll of material reaches the top of the ladder the loop or sling will have practically straightened out and the roll will run between the side members 8 and onto the platform where it will remain until needed. In order that the loop will descend to the ground again a weight 20 is provided, which travels up and down with the loop.

What I claim is:—

A new and improved lifting or hoisting device for attachment to the upper portion of a ladder comprising two base members adapted for attachment to the side members of the ladder, members secured to the base members and extending outwardly sidewise from said base members, a crook shaped derrick member secured to each sidewise extending member, a cross bar extending between and supported by the upper ends of the derrick members, pulleys carried by said

cross member, platform forming members extending rearwardly from each cap member and ropes or cables having their ends connected to said cap members and extending over said pulleys and arranged to form slings.

In testimony whereof, I sign the foregoing specification in the presence of two witnesses.

EMIL C. KRAHL.

Witnesses:
HILDA M. BODE,
RUDOLPH H. BENDER.