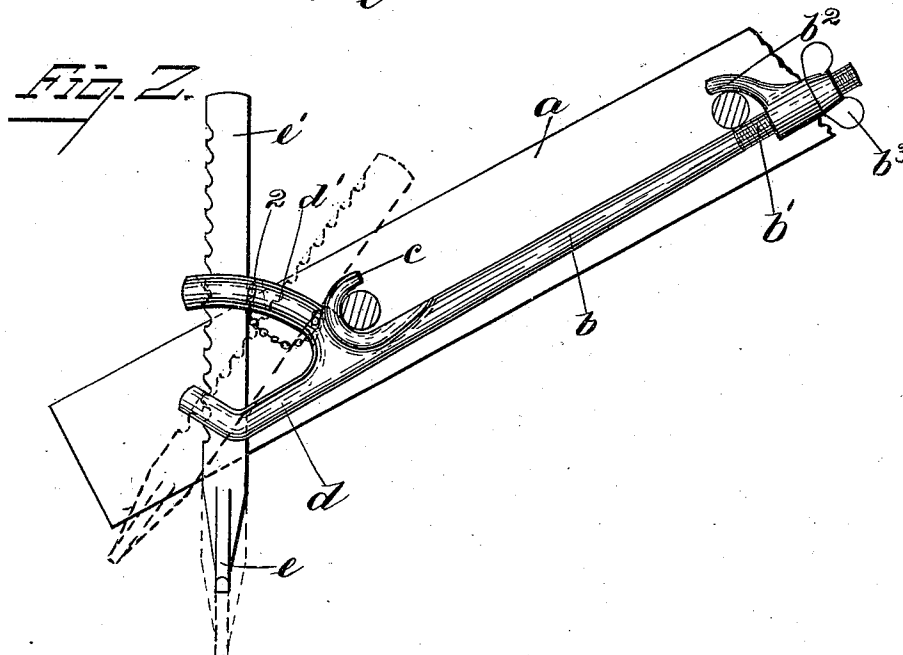
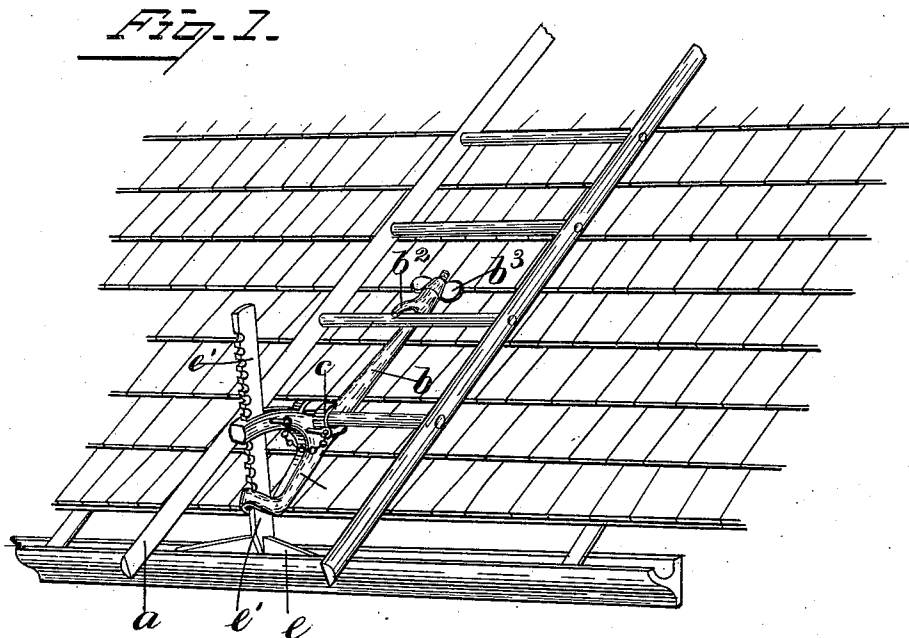


(No Model.)

J. J. HAFFERMEHL.
ATTACHMENT FOR LADDERS.

No. 556,464.

Patented Mar. 17, 1896.



WITNESSES.
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JOHN J. HAFFERMEHL, OF NEWTON, MASSACHUSETTS.

ATTACHMENT FOR LADDERS.

SPECIFICATION forming part of Letters Patent No. 556,464, dated March 17, 1896.

Application filed November 11, 1895. Serial No. 568,544. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HAFFERMEHL, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Attachments for Ladders, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

This invention has for its object to provide a ladder with an adjustable support or foot-piece adapted to be applied to the lower end of the ladder and to enter and rest in the gutter.

In view of more or less irregularity in the construction of roofs of houses, more common at present than formerly, painters and others working on roofs have found it difficult and many times impossible to secure the ladder by means of the usual hook at the top, there being no support at the particular place required. Hence this invention.

The invention consists in the combination, with a ladder, of a frame adapted to be connected to the lower rounds thereof and constructed and arranged to provide a good and sufficient support for a foot-piece, which is adapted to enter and rest in the gutter.

In order that the ladder may be used on roofs of different angles or pitch, and also to provide for gutters of different depths and gutters located more or less distant from the roof, the foot-piece is adjustably connected with its supporting-frame, not only angularly, but also longitudinally.

Figure 1 shows in perspective a ladder provided with an adjustable support at the lower end thereof, and Fig. 2 a side view of said adjustable support.

The ladder *a*, to which my attachment may be applied, is of common form and construction.

The frame, which is securely fastened to the lower rounds of the ladder, consists of a bar *b* made of suitable length, having a screw-threaded end *b'*, which receives upon it a hook *b²* and a thumb-nut *b³*. The hook *b²* is thus adjustable along the bar and is adapted to engage one of the rounds of the ladder. The bar *b* is formed or provided at its lower end with a stationary hook *c*, which is adapted to engage another round of the ladder.

It will be seen that by turning the nut and moving the hook *b²* toward the outer end of the bar the frame may be removed:

The method of application to the ladder is obvious.

The frame is formed or provided at its lower end with two arms *d d'*, arranged one above the other, as shown, or in lieu of said arms a solid block or end piece may be provided; but the arms are conducive to lightness, which is an important factor.

The arm *d* has a vertical slot or passage through it, and the arm *d'* has two vertical slots or passages through it, one directly above the slot in the arm *d* and the other farther along the arm.

The foot-piece consists of the elongated base *e*, formed at the end and centrally on a shank *e'*, the whole being inverted-T shaped.

The base *e* is designed and intended to enter and rest in the gutter, and the shank *e'* extends up through the slots or passages in the arms *d d'*.

When the shank *e'*, which projects up through the slot in the lower arm, passes through the front slot in the upper arm, the foot-piece projects at a certain angle from the ladder, and when it passes up through the rear slot in the upper arm it projects at a different angle.

The front edge of the shank *e'* is formed with teeth which engage formations on the interior of the slots of the arms, or the edges of said slots, and a pin 2 is passed transversely through the arm to hold the shank *e'* in engagement with the formations or edges referred to. A pin will be provided for each slot in the upper arm, or a single pin may be provided which can be moved along. These teeth enable the foot-piece to be adjusted longitudinally that it may project more or less from the frame.

I claim—

1. An attachment for ladders, comprising a supporting-frame adapted to be secured to a ladder, and a foot-piece carried thereby, said foot-piece being angularly and longitudinally adjustable on said frame, substantially as described.

2. The combination with a ladder of a supporting-frame having means for connecting it to a ladder, and an adjustable foot-piece

carried thereby adapted to enter and rest in the gutter, substantially as described.

3. The combination with a ladder, of a supporting-frame having two hooks one of which
5 is adjustable toward and from the other to afford means for connecting said frame to the rounds of the ladder, and an adjustable foot-piece carried by said frame, substantially as described.

10 4. The combination with a ladder, of a supporting-frame having means for connecting it to the ladder, said supporting-frame having an arm provided with one or more vertical slots therein, each of said slots having a
15 toothed formation on one of its faces, and a foot-piece adjustably supported in one of said slots, said foot-piece having a shank provided with toothed projections on one of its faces

adapted to engage the projections on one of the faces of the slot and hold the foot-piece
20 in any desired position, substantially as described.

5. The combination with a ladder of a frame provided with means for connecting it with the ladder, and having the lower arm *d* formed
25 with a slot and also having the upper arm *d'* formed with two slots, the foot-piece comprising a base and a toothed shank, and the pin 2, substantially as described.

In testimony whereof I have signed my
30 name to this specification in the presence of two subscribing witnesses.

JOHN J. HAFFERMEHL.

Witnesses:

B. J. NOYES,

F. H. DAVIS.