My invention relates to hoisting attachments for ladders by which materials used in constructing and repairing the roofs of buildings can be hoisted to the roof through the use of a ladder of conventional construction.

It is a purpose of my invention to provide a hoisting attachment for ladders, which is characterized by its structural simplicity and low cost of manufacture; its easy mode of attachment and detachment to and from a ladder; and its ability when attached, to secure itself against accidental detachment without the use and manipulation of screws, bolts, nuts, clamps, and the like.

I will describe only one form of hoisting attachment for ladders embodying my invention and will then point out the novel features thereof in claims.

In the accompanying drawings:

Fig. 1 is a view showing in vertical section one form of hoisting attachment embodying my invention in applied position to a ladder, and the ladder moved away from the side of a building to illustrate how the attachment is used in the hoisting of a bucket to the roof of the building.

Fig. 2 is a view showing the hoisting attachment in side elevation and applied to a ladder.

Fig. 3 is a view similar to Fig. 1 showing the position of the attachment and the ladder when no material is being hoisted by the attachment.

Fig. 4 is an enlarged perspective view of the hoisting attachment.

Referring specifically to the drawings in which similar reference characters refer to similar parts in each of the views, my invention in this embodiment comprises a frame designated generally at F which may be made of a single length of steel tubing bent medially of its ends to form a pair of parallel spaced legs 15 of equal length, and an upper connecting or bridge portion 16 preferably of light weight.

Welded or otherwise secured to the same side of the legs and arranged in pairs one beside the other, are brackets B for attaching the frame to the rungs of a ladder. These brackets are identical in construction, and each comprises two arms 17 and 18 constructed from a single piece of metal and arranged at right angles to each other.

In each instance the arm 17 at its free end edge is capped to conform to the rounded contour of the leg 15, and welded to the leg at this point so that the arm is perpendicular to the leg, while the arm 18 is parallel to the leg. Such mode of fixing the bracket to the leg is supplemented by a metal web 19 which is shaped at its inner edge to have continuous contact with the outer sides of both arms 17 and 18, as well as the leg 15. It is at this edge that the web is welded to the arms and leg, thereby reinforcing the bracket against bending, and providing additional securing means for the arm 17.

The foregoing described construction of bracket B is for use with ladders having rungs of square or rectangular form in cross section, but it will be understood that the brackets can be modified to render them applicable to ladder rungs of circular cross section.

To provide means for swivelly suspending from the upper end 16 of the frame F, a conventional pulley P with its accompanying rope R, a cross member 20 in the form of a metal rod reinforced by a web 21, is welded to the legs 15 adjacent the frame end 16. From this member 20 the hook 22 of a clevis 23 for the pulley P may be suspended to position the pulley between the legs 15, as illustrated.

My hoisting attachment is applied to the rungs 24 of a ladder by positioning the frame above and at one side of the ladder so that the legs 15 are between the side rails 25 of the ladder, while the brackets B are above the uppermost rungs. That is to say, the brackets of the upper pair are above the uppermost rung while the brackets of the lower pair are just above the next rung below. With the attachment so positioned it will be clear that by lowering the frame F the brackets B are caused to embrace the two uppermost ladder rungs, and to thereby securely hold the frame on the ladder against both downward movement and lateral movement. The pulley P may now be applied to the cross member 20 so that the pulley is suspended from the frame at a point above the uppermost ladder rung with the rope R extended to opposite sides of the ladder, as illustrated.

In use of the attachment, any roofing material may be attached to one end of the rope such, for example, as the bucket K (Fig. 1), while the other end of the rope extends to the ground for manipulation to hoist the bucket K upwardly to the top of the building indicated at D in Fig. 1.

In order that such hoisting of material may be effected it is necessary for the roofer on the top of the building to move the ladder and the attachment away from the parapet D of the building, in the manner illustrated in Fig. 1. By such positioning of the attachment and the ladder the bucket K can be hoisted between the side of the building and the ladder and up to a point within reach of the roofer on the parapet.

When the attachment is not in use it does interfere with the normal use of the ladder as it
can rest against the parapet, as illustrated in Fig. 3, to be used for reaching and leaving the building roof. To detach the attachment from the ladder it is only necessary to elevate the frame $F$ until the brackets $B$ disengage the rungs, and this can be done upon moving the ladder to the position shown in Fig. 1.

Although I have herein shown and described only one form of hoisting attachment and ladder embodying my invention, it is to be understood that various changes and modifications may be made therein without departing from the spirit of my invention and the spirit and scope of the appended claims.

I claim:

1. A hoisting attachment for ladders, including: a frame of inverted U-form; a plurality of rung-engaging brackets fixed to the parallel portions of said frame for supporting said frame on the upper end of a ladder when it is substantially vertical; and with its height portion above said upper end; and means on the height portion of said frame affording means from which a pulley may be suspended between said parallel portions.

2. A hoisting attachment for ladders, including: a frame of inverted U-form; and brackets fixed to the parallel portions of said frame; and so constructed and arranged as to embrace at least two rungs of a ladder to support said frame in a plane parallel to and extended upwardly from the upper end of a ladder when the latter is substantially vertical.

3. A hoisting attachment for ladders, including: a pair of legs fixedly connected to each other at one of their ends and otherwise spaced apart substantially in parallelism a distance to be received between the side rails of a ladder; and brackets fixed to said legs for supporting the latter on the rungs of a ladder so that the connected ends of said legs project above the upper end of the ladder when substantially vertical, whereby with a pulley suspended from the connected ends of said legs, a rope trained over the pulley can be extended to opposite sides of the ladder.

4. A hoisting attachment for ladders, including: a frame having legs spaced substantially in parallelism, a handle at one end of said legs, and a cross member between said legs and spaced from said handle, and providing means from which a pulley can be suspended between the legs; and brackets on said legs for attaching said frame to a ladder so that said handle and said cross member are positioned beyond one end of the ladder.

Charles L. Cobb.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,066,822</td>
<td>Farnham</td>
<td>July 8, 1913</td>
</tr>
<tr>
<td>1,115,420</td>
<td>Farnham</td>
<td>Oct. 27, 1914</td>
</tr>
<tr>
<td>1,246,140</td>
<td>Moritz</td>
<td>Nov. 19, 1917</td>
</tr>
<tr>
<td>1,293,160</td>
<td>Gross</td>
<td>Oct. 20, 1918</td>
</tr>
<tr>
<td>1,549,348</td>
<td>Nalder</td>
<td>July 7, 1928</td>
</tr>
<tr>
<td>1,701,347</td>
<td>Wardle</td>
<td>Feb. 5, 1929</td>
</tr>
<tr>
<td>2,174,891</td>
<td>Marah</td>
<td>Oct. 3, 1939</td>
</tr>
<tr>
<td>2,257,863</td>
<td>Schwarz</td>
<td>Oct. 7, 1941</td>
</tr>
</tbody>
</table>