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Schlei

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[54] **LADDER BRACKET**

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Related U.S. Application Data

[63] Substitute for Ser. No. 641,321, May 25, 1967.

[52] **U.S. Cl.**.....**182/214**

[51] **Int. Cl.**.....**E06c 7/48**

[58] **Field of Search**.....182/214, 107, 108, 111; 248/210, 211

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[57] **ABSTRACT**

Separate brackets are adjustably clamped to the corresponding side rails of a ladder to interlock with a selected rung of the ladder, and a leg is pivotally carried by each bracket and adjustably secured thereto at a selected angle to extend toward and engage the side of a building or other support with the ladder spaced from the building by said legs.

1 Claim, 4 Drawing Figures

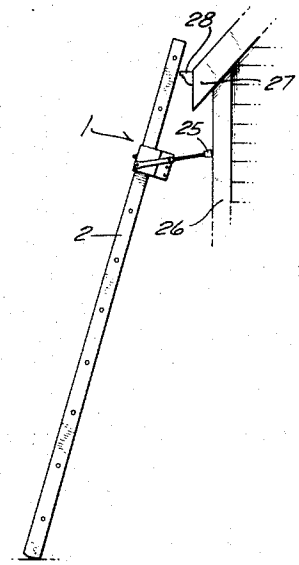
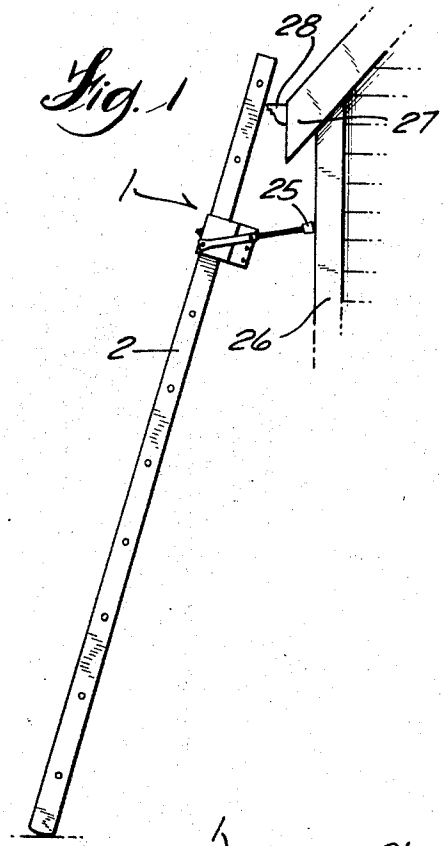


Fig. 1



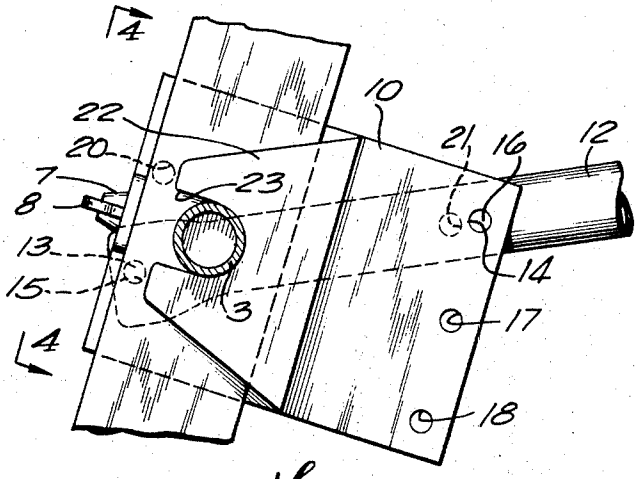


Fig. 3

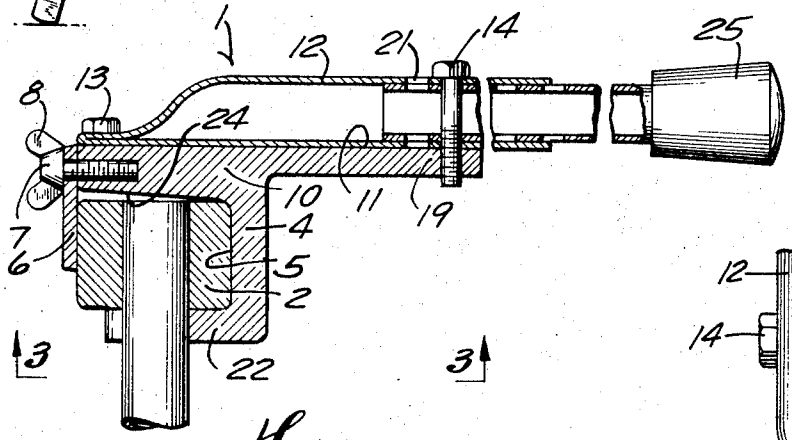


Fig. 2

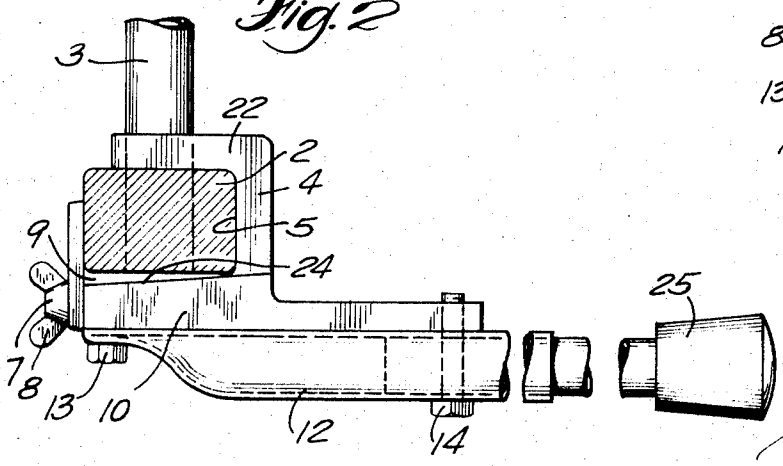
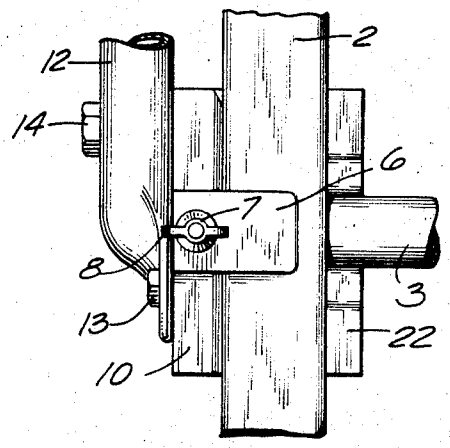


Fig. 4



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LADDER BRACKET

CROSS REFERENCE TO RELATED APPLICATION

This application is a substitute for application Ser. No. 641,321 filed May 25, 1967 for Ladder Bracket Unit.

BACKGROUND OF THE INVENTION

The present invention relates to a ladder bracket for holding the upper end of a ladder at a distance from the side wall against which it leans.

Various attempts to provide brackets to hold a ladder spaced from the side of the building and from eaves and the like have generally been costly and of varying degrees of safety. Some have attached solely to the ladder rungs and failed to provide the rigidity and safety obtainable with attachment to the side rails. Others have been generally complicated in construction and attachment.

SUMMARY OF THE INVENTION

The present invention provides a separate bracket adjustably clamped or otherwise secured to each of the side rails of the ladder and interlocking with a selected rung thereof.

A leg is adjustably secured to each bracket at a selected angle relative to the ladder and extends toward a building wall to hold the ladder in spaced relation relative thereto.

The legs are generally parallel and may serve to support a plank or suitable platform thereon.

Where the ladder is being used on a hip roof the legs serve as a hook engaging the opposite side of the hip peak to hold the ladder from falling.

DESCRIPTION OF THE DRAWING

The accompanying drawing illustrates the best mode presently contemplated for carrying out the invention.

In the drawing:

FIG. 1 is a side elevation of a ladder in service with the ladder spaced from a wall by the brackets of the invention;

FIG. 2 is an enlarged transverse section of the ladder showing one bracket in top plan view and the other sectioned centrally;

FIG. 3 is a detail section taken on line 3—3 of FIG. 2 and showing a bracket in side elevation; and

FIG. 4 is a front elevation of a bracket taken on line 4—4 of FIG. 3.

DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in the drawing a bracket 1 is secured to each side rail 2 of a ladder and interlocked with a selected rung 3 of the ladder.

Both brackets are of identical construction and one need only be reversed or turned over relative to the other in order to provide for attachment to the corresponding side rail.

Each bracket 1 comprises a U-shaped body 4 preferably constructed of a casting as shown and wherein the U-shaped recess 5 receives the corresponding side rail 2 of the ladder.

A latch 6 is pivotally secured to one side of body 4 by a bolt 7 having wings 8 on its head to facilitate tightening of the same.

Loosening of bolt 7 permits the finger-like latch 6 to be pivoted away from the mouth or opening 9 of recess 5, so that the bracket 1 may be removed from or assembled upon the side rail as desired.

After a bracket 1 has been applied to the side rail the latch 6 closes the recess 5 and prevents removal of the bracket from the side rail.

The outer leg 10 of bracket 1 is extended to provide an outer flat surface 11 to which an arm 12 may be clamped as by bolts 13 and 14 in various adjusted positions.

The bolt 13 passes through the flat end of arm 12 and is threaded into a transverse threaded hole 15 in leg 10 near the lower forward corner of the leg.

The bolt 14 passes through arm 12 and is threaded into any one of a plurality of spaced threaded holes 16, 17 and 18 in the rearward extension 19 of leg 10 to provide for angular adjustment of arm 12 relative to the ladder.

A threaded hole 20 is provided in the upper forward corner of leg 10 and is used for receiving bolt 13 in case the bracket is reversed as when assembled with the opposite side rail of the ladder. Thus hole 15 is used when bracket 1 is on the left hand side and hole 20 is used when bracket 1 is on the right hand side of the ladder.

In constructing the leg 10 and its extension 19, the hole 15 is located equa-distant from holes 17 and 18, and hole 20 is located equa-distant from holes 16 and 17, the said distance for holes 15 and 20 being the same. The hole in arm 12 receiving bolt 14 is at the same distance from the hole receiving bolt 13 as the distance between hole 15 and either of holes 17 or 18, and the distance between hole 20 and either of holes 16 and 17.

An additional hole 21 is provided in arm 12 for selectively receiving bolt 14 when it is desired to adjust the arm 12 to a greater angle. For this purpose the distance between the additional hole 21 and that for bolt 13 equals the distance between hole 16 and hole 15, and also the distance between hole 18 and hole 20.

Since ladders have side rails of somewhat varying dimensions there may be instances in which the side rail 12 will be clamped in recess 5 by latch member 6. In other cases the side rail 12 will be loose in bracket 1, in which event the bracket is prevented from slipping down from the desired position by interlocking the same with a selected rung 3 of the ladder.

For this purpose the inner leg 22 of U-shaped body 4 has a recess 23 in the free edge thereof adapted to receive and embrace the rung 3 as shown in FIG. 3 and to thereby retain the bracket at the proper height on the ladder and properly orientated relative to the ladder to retain arm 12 at the selected angle to the ladder.

The recess 5 is preferably tapered as indicated by the angular inner face 24 of leg 10 in FIG. 2 to facilitate assembly upon the side rail 2.

The arm 12 may have a rubber cap 25 or other cushion and anti-slip construction at its end for engagement with the wall 26 of a building.

The length of arm 12 may be adjusted as by constructing the same of telescoping tubular members secured by bolts 14 in selected matching openings therethrough, to provide for adjustable spacing of the ladder from wall 26 sufficiently, to accommodate various widths of overhang of eaves 27 and avoid engagement between the ladder and gutters 28.

The construction may be employed to serve as a hook in holding a ladder on a hip roof with arms 12 extending downwardly upon the opposite side of the peak from that of the ladder.

Various additional uses for the brackets may be utilized as desired.

Various modes of carrying out the invention are contemplated as being within the scope of the following claims particularly pointing out and distinctly claiming the subject matter which is regarded as the invention.

I claim:

1. A ladder bracket comprising a U-shaped body

with an inner and outer leg and adapted to embrace each side rail of a ladder, pivotal latch means carried by each said body to confine the corresponding side rail of a ladder therein, a recess in said inner leg of both said U-shaped bodies adapted to receive a rung of a ladder to position and orientate the bracket relative to the ladder, an arm pivotally attached to the outer leg of each of said U-shaped bodies, and means to adjust each said arm to a selected angular relationship to the ladder wherein a bolt passes through the arm and outer leg to positively secure the same together.

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