

Dec. 25, 1923.

P. G. GAUSS

1,478,823

ROOF PROJECTION LADDER SUPPORT

Filed Feb. 8, 1923

Fig. 1.

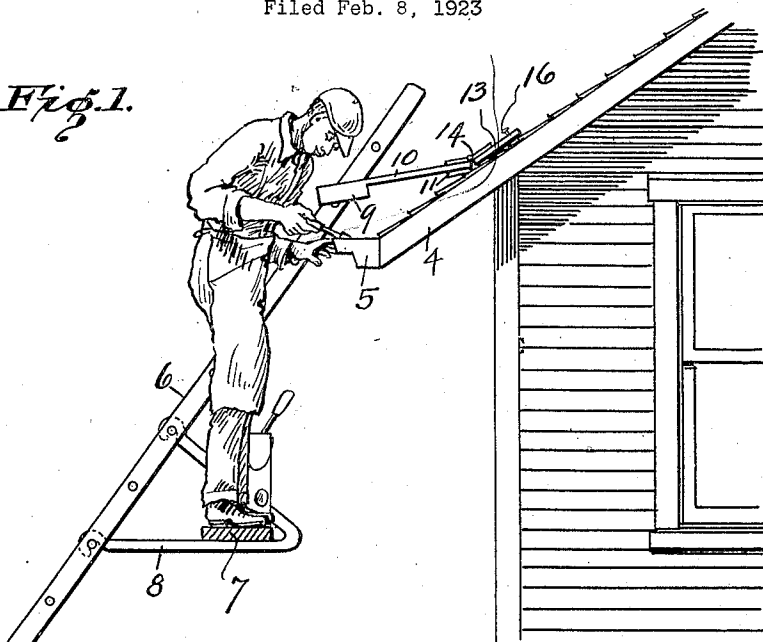


Fig. 2.

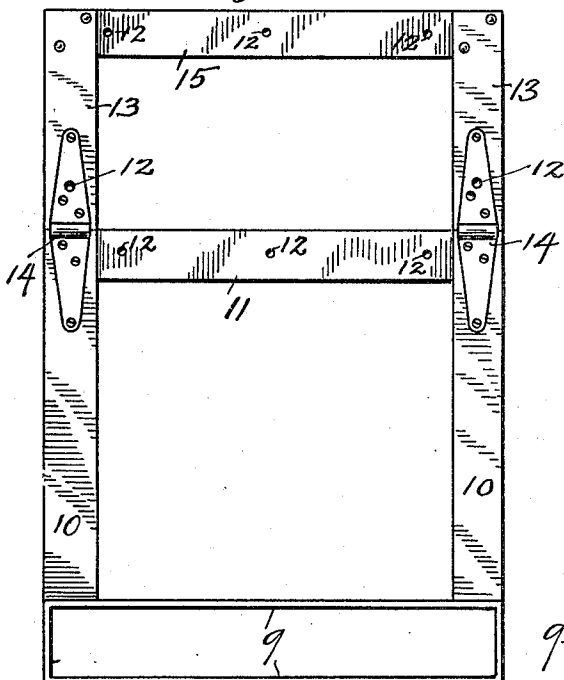
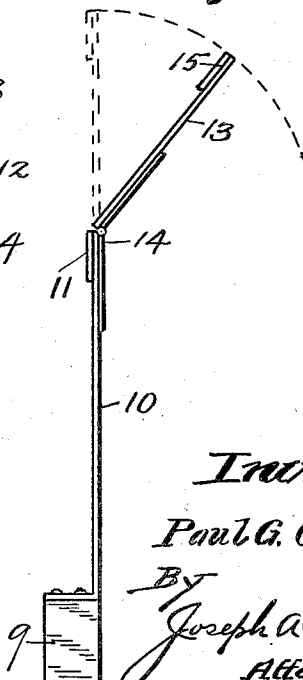


Fig. 3.



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UNITED STATES PATENT OFFICE.

PAUL G. GAUSS, OF INDIANAPOLIS, INDIANA.

ROOF-PROJECTION LADDER SUPPORT.

Application filed February 8, 1923. Serial No. 617,787.

To all whom it may concern:

Be it known that I, PAUL G. GAUSS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Roof-Projection Ladder Supports, of which the following is a specification.

The object of this invention is to provide a support for ladders used by tin-smiths and other workmen in the erection, repair, and inspection of metal gutters, cornice work and the like, on the overhanging roofs and projections of houses, which support does not damage the gutters or metal work by contact therewith but has a bearing on the roof above, and holds and supports the ladders out of contact with said metal work so that the workmen may stand easily and naturally beside the metal work instead of under the projection.

A further object is to provide a safe, convenient, and inexpensive attachment for the above accomplishment which is adapted to ladders now in common use.

I accomplish the above, and other objects which will hereinafter appear, by the mechanism illustrated in the accompanying drawing, in which—

Fig. 1, is a side elevation of my invention in use on a building. Fig. 2, is a top plan view of my invention without showing any of the associated parts in use, and Fig. 3 is an edge view of same.

Like characters of reference indicate like parts in the several views of the drawing.

Generally a pair of ladders are used by a workman on house projections having gutters or other metal work, to support a plank-platform on which the workman stands and along which he can move with more freedom than if standing on a rung of a ladder; and the view in Fig. 1 shows a house with a projecting roof 4, a sheet metal gutter 5, and the far ladder 6 of a pair of ladders. The plank platform 7 is here shown in vertical section and the near ladder of the pair is not included in the view. The plank 7 is supported by a V-shaped iron bar 8 having end-hooks that hook over the rungs of the ladder. This member 8 is well known in both construction and use.

My invention is a device for supporting the ladder from the house-roof, as shown. It is obvious that if the ladders are leaned directly against the side of the house that

the roof projection makes access to the gutter there inconvenient for the workman when the gutter is located as shown at the lower edge of the roof, and this inconvenience is much greater where the gutter is located upon the roof above the edge, as often is the case.

To support the ladders against the gutter in the first mentioned location of the ladder, or against the edge of the roof where the gutter is above the edge, is likely to injure either the gutter or the roof-edge, and to avoid this I provide a rectangular metal-sleeve 9 through which a ladder is slidably inserted from the end of the ladder with a loose fit for the sleeve such as will permit of adjustment to an oblique position as shown in Fig. 1 when a clamping grip of the sleeve on the ladder is obtained.

Riveted or otherwise rigidly fastened to the sleeve 9 are a pair of spaced-apart metal straps 10, 10, which have their opposite ends connected by a transverse rigidly attached bar 11. The bar 11 in use rests upon the roof of the house. It has a series of holes 12 through which nails may be driven to enter the roof and retain the bar in position more positively if desired.

The bearing area upon the roof is preferably increased by strap extensions 13, 13, connected by hinges 14 with the respective straps 10 so the angular positions of the straps 13 may be changed to conform with the pitch of the roof, and the ends remote from the straps 13 are joined by a rigidly-attached transverse bar 15. This bar and straps 13 have holes 12 for the passage of nails 16 into the roof to more positively hold the whole device from slipping; however, in practice I have found that nailing is not necessary, but it often gives confidence to those using my invention for the first time.

In practice, the ladders are set to lean against the edge of the roof and then the respective sleeves 9 are slipped down over the ends of the ladders and their bars 11 extended obliquely to contact their upper ends against the roof, where they are positioned so that the ladders will be close to but spaced always from the gutter, there to be held by the gripping action of the sleeve 9 upon the ladder which is increased by the weight of the plank-platform and workman. Whatever nailing is thought to be desirable is then done.

My invention is capable of numerous

changes in construction, some of which I have here specifically mentioned, and also in its proportions, and I therefore do not desire to be limited to the precise form shown or
5 any more than is required by the appended claims; and having fully described my invention, what I claim as new and desire to secure by Letters Patent is—

1. In a device for the purposes specified,
10 a sleeve with a single opening to slidably receive both side members of a ladder, and members extending therefrom to contact a roof and cause the sleeve by weight on the ladder to grip and hold the ladder in a
15 given position.

2. In a device for the purposes specified, the combination of a sleeve with a single opening to slidably receive both side members of a ladder, a pair of brace bars rigidly
20 attached to the sleeve to cause the sleeve to clamp and hold the ladder by a load on the

ladder, a cross-bar rigidly connecting their ends remote from the sleeve, and an extension of said bars hinged to said bars and bearing upon the roof.

3. In a device for the purposes specified, the combination of a sleeve with a single opening to slidably receive both side members of a ladder, a pair of brace-bars integral with the sleeve and bearing against a roof
30 at their ends remote from the sleeve to cause the sleeve to clamp and hold the ladder by a load on the ladder, a cross bar rigidly connecting the ends of the pair of bars remote from the sleeve, and a roof contacting member hinged to said bars comprising side
35 bars and a cross-bar rigidly connecting their ends that are remote from the hinges.

Signed at Indianapolis, Indiana, this the 5th day of February, 1923.

PAUL G. GAUSS.