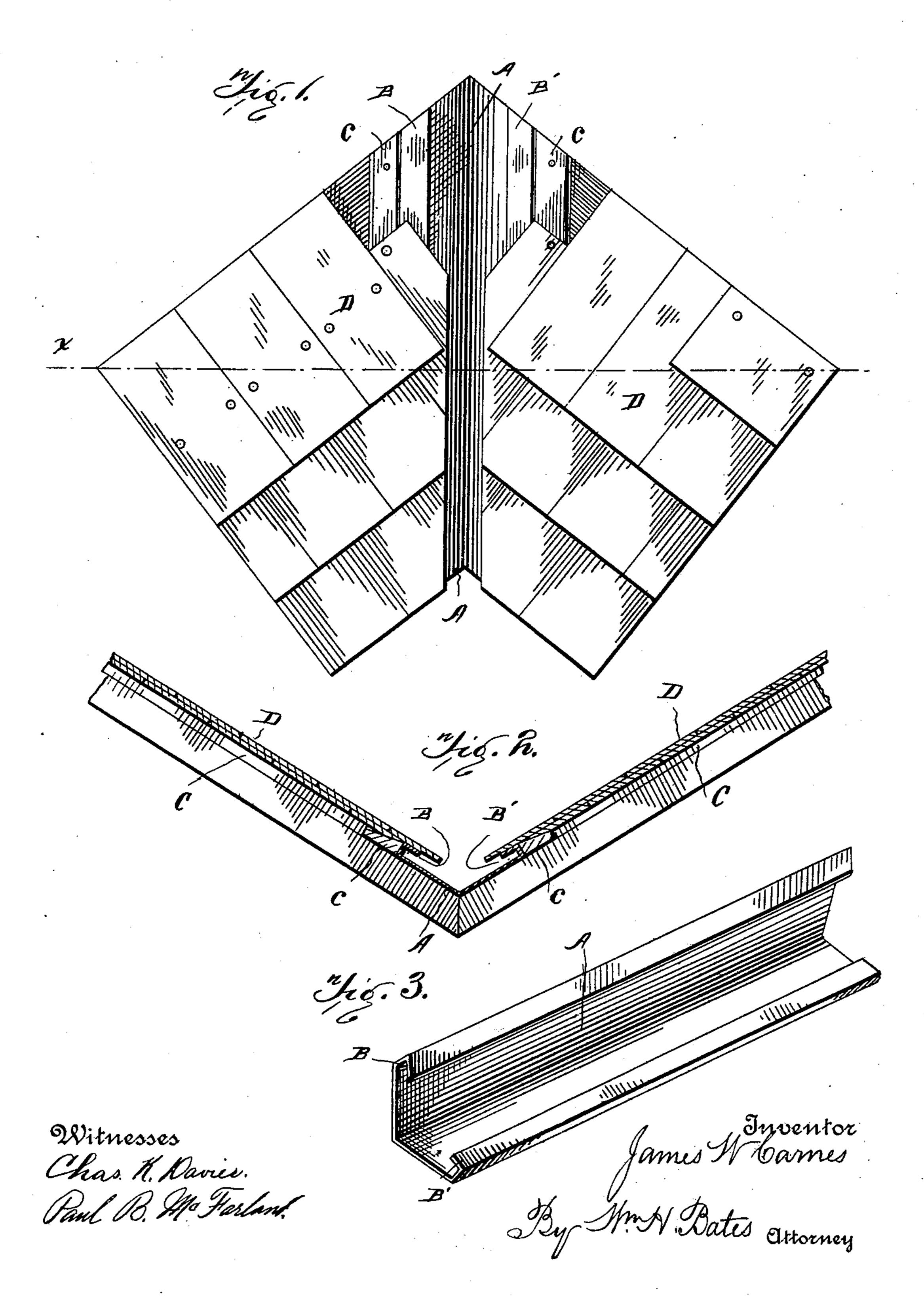
## J. W. CARNES. VALLEY FOR ROOFS.

(Application filed Mar. 7, 1901.)

(No Model.)



## United States Patent Office.

JAMES WESLEY CARNES, OF WAYNESBURG, OHIO, ASSIGNOR OF ONE-HALF TO HAWLEY W. DAUCHEY, OF SAME PLACE.

## VALLEY FOR ROOFS.

SPECIFICATION forming part of Letters Patent No. 678,995, dated July 23, 1901.

Application filed March 7, 1901. Serial No. 50,162. (No model.)

To all whom it may concern:

Beitknown that I, James Wesley Carnes, a citizen of the United States, residing at Waynesburg, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Valleys for Roofs; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in valleys for roofs, and is applicable only to those roofs in which valleys are used, and it can be conveniently placed thereon without removing the slates, shingles, or other covering after one has been put on.

With these ends in view the invention consists in the novel construction and combination of parts, as will be hereinafter more in detail described and specifically claimed.

In the accompanying drawings, to which reference is had and which fully illustrate my invention, Figure 1 is a perspective view of my valley-gutter as applied to a roof. Fig. 2 is a cross-section of the same, taken on the line x x of Fig. 1; and Fig. 3 is a detached view of the valley-gutter.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the valley-gutter, which is made of sheet metal and describes an acute angle, with each of its free ends B B' forming a right angle, or, if desired, they may be of any form preferred, to the main body thereof to fit the sheathing in the valley, and it is made and soldered together in one continuous strip throughout its entire length, this being the

preferred form, or it may be made in sections, in which case the top section should lap over the one immediately below it.

C C designate a sheathing, on the top of which are secured strips c c, made of wood or other material, to prevent the slate from rising in the second course and to raise the lower courses from the sheathing to permit 50 the angular ends of the valley-gutter to slip under the slate, as clearly shown in Fig. 2 of the drawings. They extend from the eaves to the comb and also along the eaves of the roof.

D D designate the slate or covering of the roof.

It will be readily seen that the angular ends of the valley-gutter (shown in Fig. 2) when slipped beneath the roof and along the strips 60 will prevent the water or snow from backing up, thus causing leakage, and that the valley metal being only retained at the top of each section and that covered by the next section above or the edge roll at the comb of the roof 65 can be loosened without disturbing the slates and a new section or entire valley substituted at a very small cost.

What I claim as new, and desire to secure by Letters Patent, is—

The combination with the sheathing and strips secured thereon, and slates forming the roof; of the angular valley-gutter the side edges of which are bent upward, and then-inward, so as to form grooves or channels sub-75 stantially as described and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

## JAMES WESLEY CARNES.

Witnesses:

GEO. M. COPENHAVER, FINIS D. MORRIS.