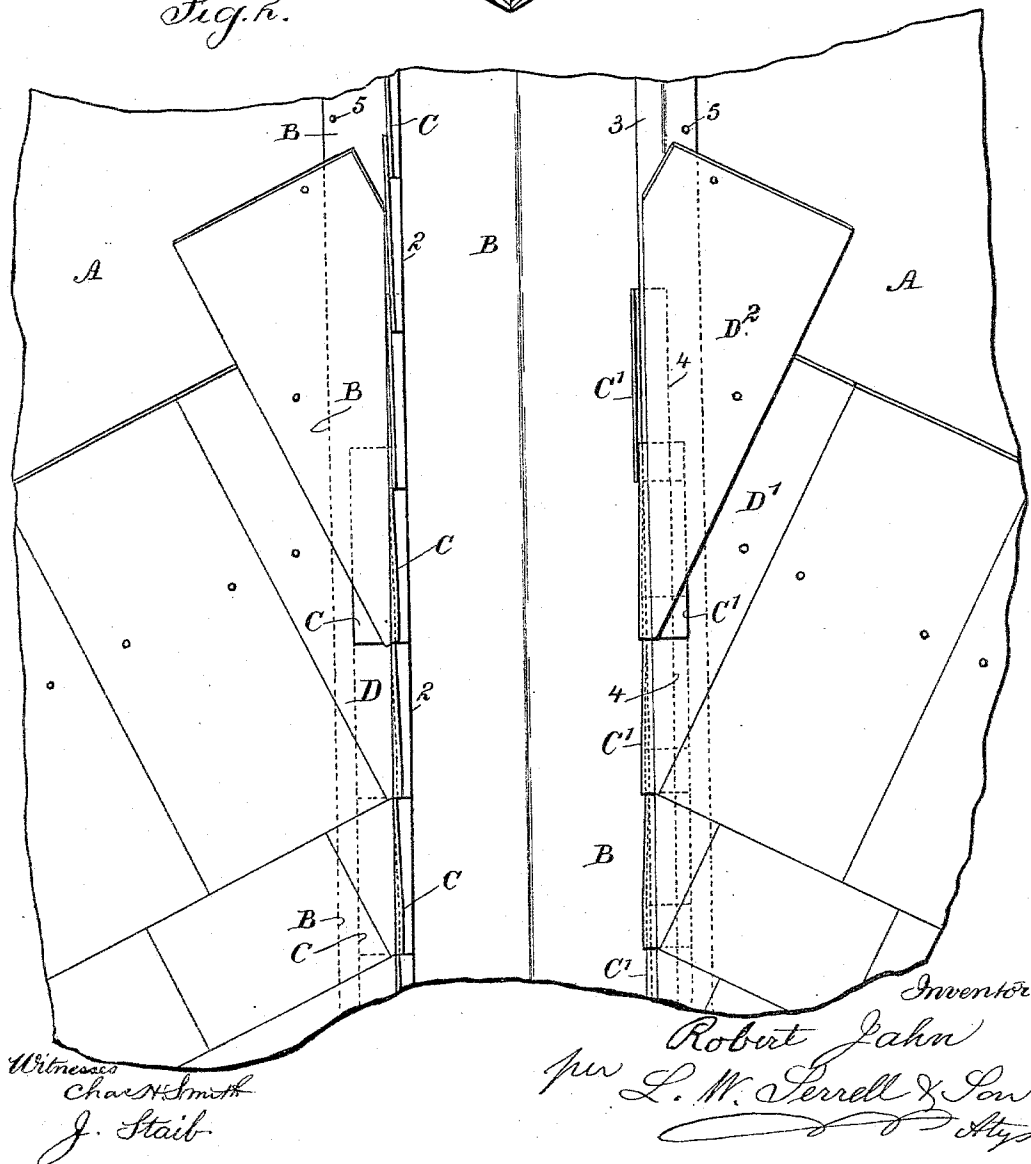


R. JAHN.
ROOF VALLEY.

Patented Nov. 17, 1896.



UNITED STATES PATENT OFFICE.

ROBERT JAHN, OF SCOTCH PLAINS, NEW JERSEY.

ROOF-VALLEY.

SPECIFICATION forming part of Letters Patent No. 571,565, dated November 17, 1896.

Application filed April 17, 1896. Serial No. 587,890. (No model.)

To all whom it may concern:

Be it known that I, ROBERT JAHN, a citizen of the United States, residing at Scotch Plains, in the county of Union and State of New Jersey, have invented an Improvement in Roof-Valleys, of which the following is a specification.

In the construction of roofs the valley between one inclined portion and another inclined portion and also the angle between a vertical or nearly vertical portion and the inclined surface of the roof have been lined with plates or sheets of tinned iron or other metal, and the slates, shingles, or other roof-coverings have been applied upon the surfaces of the roof, leaving the valley or angle protected by the sheet metal only. Difficulty has been experienced in keeping these portions of the roof from leaking, because snow or ice or foreign materials sometimes lodge in the valley or angle and prevent the free discharge of the water, and the water backing up runs in between the slates or shingles and the metal plates, and passing over the edges of such metal plates runs through the boarding or roof foundation. To lessen the aforesaid difficulties, the valley-plates have been made with edges folded over, and metallic sheets have been interlocked or hooked into the folded edges of the valley-plates and either laid in beneath the shingles or slates or connected with the other portions of the roofing, and in some instances valley-plates have been corrugated longitudinally to form beads or ribs that lessen the risk of the water backing up beneath the shingles or slates. These devices, however, are often difficult to apply and are not adapted to preserve the edges of the shingles or slates that are contiguous to the valley-trough from displacement or injury.

The present invention is made for the twofold purpose of preventing water backing up over the valley-plates and between the same and the shingles or roofing-coverings and for protecting the edges of such shingles or slates from injury and from becoming loose or detached under atmospheric influences or from the expansion due to the freezing of accumulations of snow and water; and said invention consists in the combination, with the valley-

plates, of flashing-plates securely fastened at their lower edges to the valley-plates and lapping over the edges of the shingles or slates and passing between one layer of shingles or slates and the next, such flashing-plates being applied successively as the shingles or slates are affixed in position. By this means the upper portion of each shingle or slate is firmly retained by the fold of the flashing-plate.

In the drawings, Figure 1 is a cross-section of the valley, representing the valley-plates and the attached flashing-plates and portions of the shingles or slates; and Fig. 2 is a plan view representing the successive stages of the work as the shingles or slates are laid in position.

A portion of the boarding of the roof is shown at A, the same coming together at an angle to form the valley between one inclination of the roof and the other, and the metallic valley-plates B are of suitable width and length and the ends are lapped and advantageously soldered, as usual, and the flashing-plates C are permanently connected to the valley-plates B at the proper distance from the bend or angle of the valley, and the extreme edges of the valley-plates B are to be nailed to the boarding A, as usual, at 5. The flashing-plates lap at their ends, as shown.

Where the valley-plates can advantageously be prepared and the flashing-plates permanently connected to the same before the valley-plates are applied to the roof, such flashing-plates can be soldered to the valley-plates, as shown at 2, such flashing-plates standing upright, so that the shingles or slates D can be cut at the proper angle and laid in upon the outer portions of the valley-plates and closely adjacent to the upper surface of the flashing-plates, and as each layer of shingles or slates is secured to the roof the flashing-plate C is to be bent or hammered down upon the top surface of such shingle or slate, and usually and advantageously the lower edge of the flashing-plate is on line, or nearly so, with the lower end of the shingle or slate that is to be laid upon such flashing-plate, in order that the flashing-plates may be partially or entirely covered except at those portions where the flashing-plate is exposed at

the edge of the shingle or slate and forms substantially the edge of the sheet-metal valley or trough.

In some instances it is advantageous to use 5 flashing-plates that are not soldered to the valley-plates, so that the lower ends of such flashing-plates can be placed in the proper positions to coincide with the lower edges of the lines of shingles or slates, and with this 10 object in view I prefer to provide a double fold 3 in the valley-plate, so that the upper edge of the valley-plate remains single and can be nailed down, as at 5, but the fold 3 of the sheet metal of the valley-plate is sufficient for the flange 4 of the flashing-plate C' 15 to be driven into such fold, so as to be tightly held therein, and the connection may be rendered still more rigid by hammering down the fold 3 after the flange 4 has been inserted 20 therein, and it will be observed that the flashing-plate C' will stand vertical, or nearly so, after the flange has been secured in the fold 3, so that the edge of each shingle or slate D' can be properly fitted against such flashing-plate, and then the flashing-plate will be 25 folded down upon the same, and the next line of shingles or slates will rest upon such flashing-plate, as seen at D². In this manner the construction of the roof can be proceeded 30 with rapidly and the valley is effectually protected against the water backing up between the shingles or slates and the valley-plates and leakage prevented.

This improvement is available with tiles 35 and also with metallic roof-plates or other roof-coverings, these being the equivalents of shingles or slates, and it will also be apparent that the flashing-plates may be turned

over and the ends of the shingles, slates, or other covering-plates passed in beneath the 40 turned-over flashing-plates, or such flashing-plates may be turned over after the shingle or slate has been fastened down in position.

It is customary for roofers and others to walk in the valleys when constructing, inspecting, or repairing the roof. In doing this 45 the ribs and folds in the valley-plates heretofore used are often flattened and rendered useless. In my improvement any pressure on the shingles or slates at the edges of the valley-gutters is not injurious, but on the contrary 50 only tends to render the parts more compact and tight.

I claim as my invention—

1. The combination with the valley-plates 55 and shingles or slates, of flashing-plates permanently connected at one edge with the valley-plates and folded over the edges and upon the surfaces of the shingles or slates to inclose the same, the shingles or slates in one 60 row being laid upon the flashing-plate of the row below, substantially as set forth.

2. The combination with the valley-plates having double folds 3, of the flashing-plates 65 having edge flanges driven in between the folds of the valley-plates and lapping, and such flashing-plates being folded down upon the shingles or slates in succession and coming beneath the slates or shingles in the row 70 above, substantially as set forth.

Signed by me this 13th day of April, 1896.

ROBT. JAHN.

Witnesses:

GEO. T. PINCKNEY,
HAROLD SERRELL.