

(No Model.)

S. R. HAWTHORNE.
SNOW AND ICE GUARD.

No. 401,559.

Patented Apr. 16, 1889.

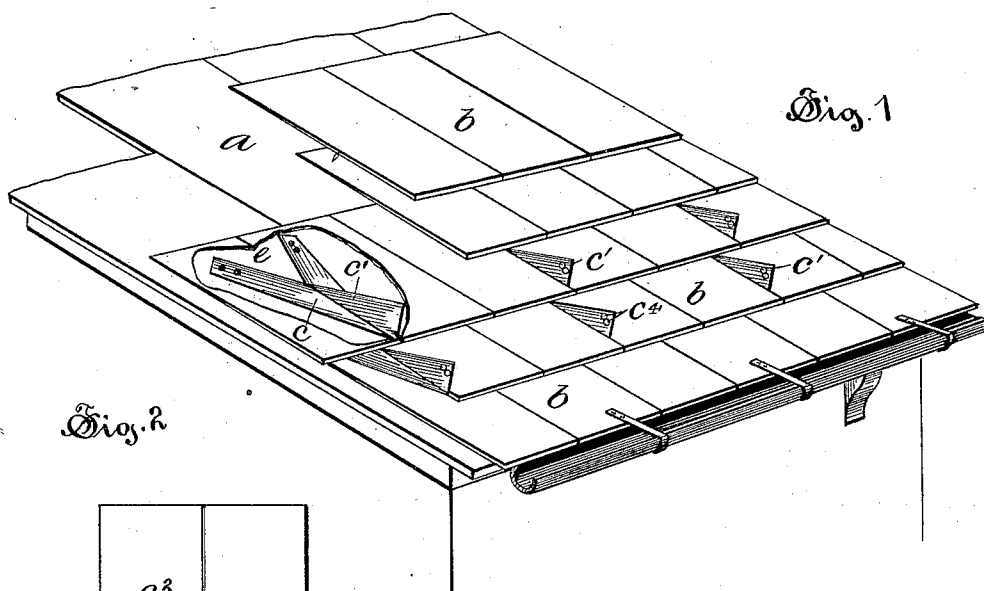


Fig. 1

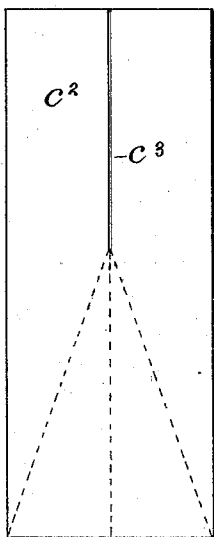


Fig. 2

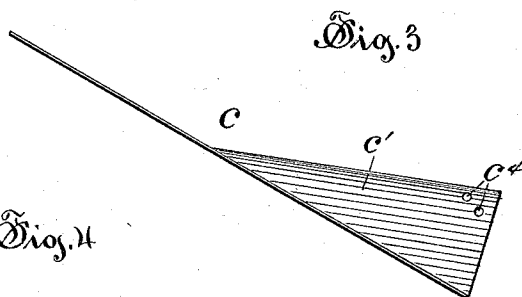
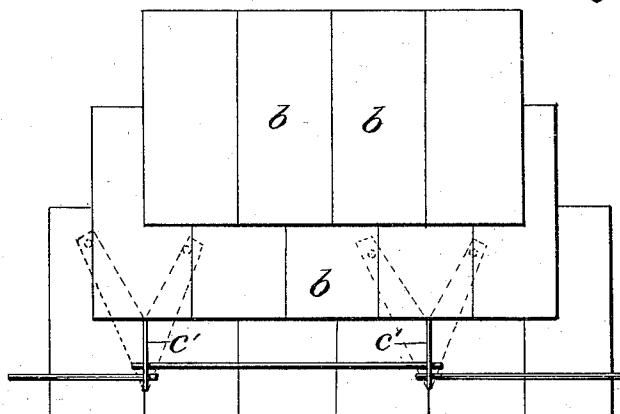


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

SAMUEL R. HAWTHORNE, OF MIDDLEBURY, VERMONT.

SNOW AND ICE GUARD.

SPECIFICATION forming part of Letters Patent No. 401,559, dated April 16, 1889.

Application filed November 30, 1888. Serial No. 292,344. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. HAWTHORNE, of Middlebury, in the county of Addison and State of Vermont, have invented certain new and useful Improvements in Snow and Ice Guards, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

My invention relates to the class of devices that are secured to a roof for the purpose of preventing snow from sliding off therefrom in masses.

The object of my invention is not only to provide a guard against the falling of the snow, but also against the accumulation of the same in masses near the edge of the roof.

To this end my improvement consists of the guard formed of sheet metal and folded to shape with the rib or fin and the flat legs; and it further consists in details of the several parts making up the guard as a whole, and in their combination, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a part of a roof illustrating the method of attaching my improved guard. Fig. 2 is a detail plan view of a blank of metal from which the guard is preferably formed. Fig. 3 is a detail side view of one of the guards. Fig. 4 is a detail plan view of a portion of a roof, showing the slating with the improved guards with rods extending between the bracket-pieces.

In the accompanying drawings, the letter *a* denotes the roof of a building, on which are secured the shingles or slates *b* in the usual manner. On such a roof, before the slates are secured, the position of the snow-guard *c* is determined, and the guard is secured in place with the rib or fin *c'* projecting upward between the edges of two adjacent slates, and with the butt-end of one of the slates overlying the guard and resting about at the point where the point or web of the fin rises from the roof. This guard *c* is preferably made of sheet metal, and is preferably of copper, on account of its durability when exposed to the action of the weather. A flat piece somewhat oblong in outline is cut from sheet metal in form of the blank *c*², is cut apart lengthwise

on the line *c*³, and is then bent upward at the connected end of the blank about on the dotted lines, the central part, in continuation of the line *c*³, being on the fold and forming a rib or fin, *c'*. By the punching up of the metal at the end of the blank the legs are spread outward into a fork shape, as shown at *e* in Fig. 1, and these legs lie flat upon the roof and may be secured to it by nailing or by bending downward the edges or ends of the legs and driving them into the wood-work of the roof, the outspread position of the legs affording a very firm support to the upright integral parts. These guards may be secured at any desired intervals along a given line, with rods passing through the holes *c*⁴, of which there may be one or more in the rib on each guard. These guards may be disposed along and near the lower edge of the roof, or they may be arranged at intervals over the whole surface of the roof, in which case they will prevent the sliding of any part of the snow and the accumulation consequent upon the sliding of the mass along the edge of the roof.

The improved forked-shaped guard has the advantage of being applicable to old roofs without compelling the removal of the slates, as the extending legs can be thrust under the slates so as to avoid the old nailing, and the form and method of construction of this particular guard enables any kind of sheet metal to be used, as by cutting the lengthwise slot the portion to form the rib is readily punched up and formed to shape without drawing or thinning out the metal or destroying the sheet.

I claim as my invention—

1. The improved snow-guard consisting of the sheet-metal forked base with the integral rib projecting upward from the base at the line of union of the legs, all substantially as described.

2. In combination with the roof *a* of a building, the slates *b*, and the snow-guard consisting of the forked sheet-metal base with the integral triangular rib projecting upward from the base, all substantially as described.

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Witnesses:

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