

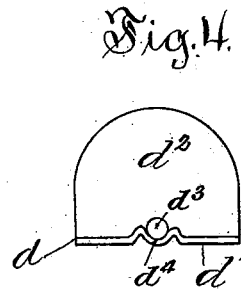
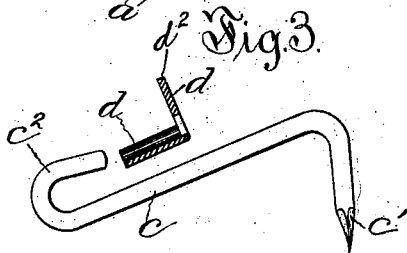
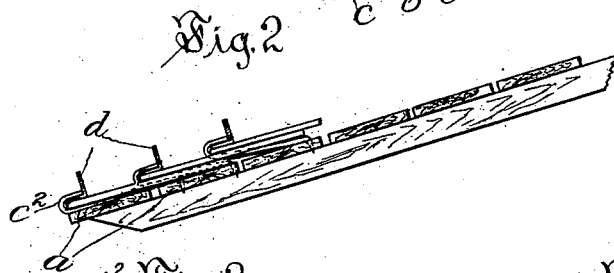
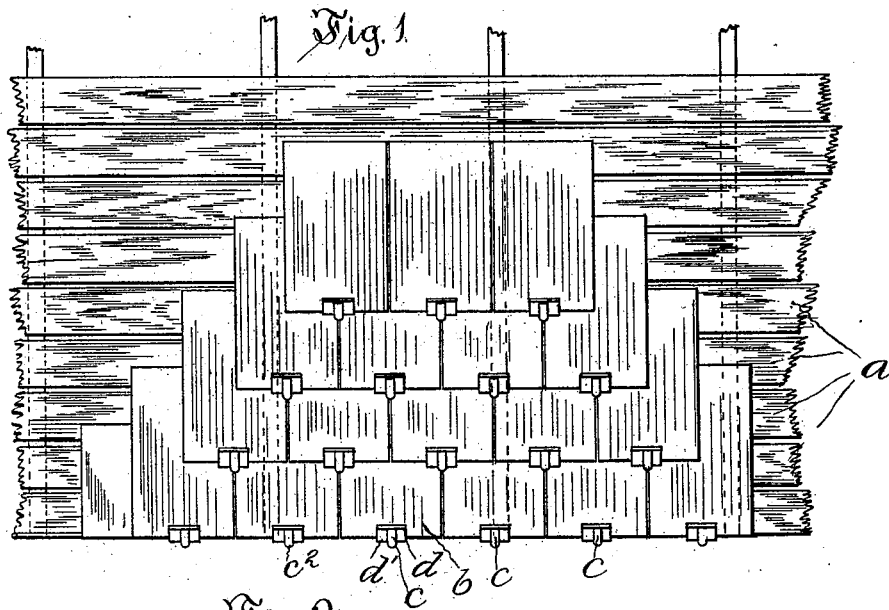
No. 646,623.

S. R. HAWTHORNE.  
ROOF.

Patented Apr. 3, 1900.

(Application filed Apr. 29, 1898.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

SAMUEL R. HAWTHORNE, OF HARTFORD, CONNECTICUT.

## ROOF.

SPECIFICATION forming part of Letters Patent No. 646,623, dated April 3, 1900.

Application filed April 29, 1898. Serial No. 679,275. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL R. HAWTHORNE, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Roofs, 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 more especially to the class of roofs that are covered with slate; and the object of my invention is to provide means whereby the slate may be attached to the roof in a firm and secure manner in such a way that the slate will not become broken or misplaced, the device at the same time affording a suitable snow and ice guard.

Referring to the drawings, Figure 1 is a plan view of a portion of a roof embodying my improvement. Fig. 2 is a detail view in section through such roof. Fig. 3 is a detail view, on an enlarged scale, showing the hook and snow-guard. Fig. 4 is a detail front view of the guard.

In the accompanying drawings the letter *a* denotes the roof-boards, usually laid with their edges parallel with the lower edge of the roof, and the letter *b* denotes the slate laid on the roof in the usual manner. A hook *c* has a bent pointed end *c'* driven into the roof-boards and with the body part of the hook underlying a slate, the hooked end *c<sup>2</sup>* being bent around the edge of the slate at the end and overlying its upper surface. This hook is driven between two slates located in the lap below that in which the slate to be held is located, the hooked end of the hook engaging the edge of the slate which it holds about midway of its width.

A snow-guard *d*, preferably of angular form, is inserted underneath the hooked end *c<sup>2</sup>* of the hook *c* and is clamped between this hooked end and the slate *b*. The foot *d'* of the snow-guard extends some distance on each side of the hook and prevents pressure of the hook on the slate at a single point, which is apt to

crack the slate if from any cause the pressure of the hook thereon becomes too great. By inserting this snow-guard underneath the hook the pressure is distributed over a considerable surface of the slate, and the upturned portion *d<sup>2</sup>* forms a snow and ice guard that prevents movement of a body of snow or ice along the roof.

A recess may be formed in the snow-guard for the engagement of the hook to afford means for securing the guard firmly in place, and this recess may be of any desirable form, as a groove *d<sup>4</sup>*, located lengthwise along the front portion of the guard, or a hole *d<sup>5</sup>* through the upturned portion near the bottom thereof, or other equivalent means.

I claim as my invention—

1. In combination in a roof, a hook secured thereto and having a back-turned portion adapted to receive the edge of a slate, and a snow-guard having a foot extending on opposite sides of the hook and interposed between the back-turned portion and the slate and an upturned portion located at an angle to the foot.

2. In combination in a roof, a hook secured thereto and having a back-turned portion adapted to receive the edge of a slate, a snow-guard interposed between the back-turned portion and the slate and having a foot extending on opposite sides of the hook, and a recess in the guard adapted to engage the hook.

3. In combination in a roof, a hook secured thereto and having a back-turned portion adapted to receive the edge of a slate, a snow-guard having a foot extending on opposite sides of the hook and interposed between the back-turned portion and the slate, and an upturned portion located at an angle to the foot, and a recess in the guard adapted to be engaged by the hook.

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Witnesses:

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