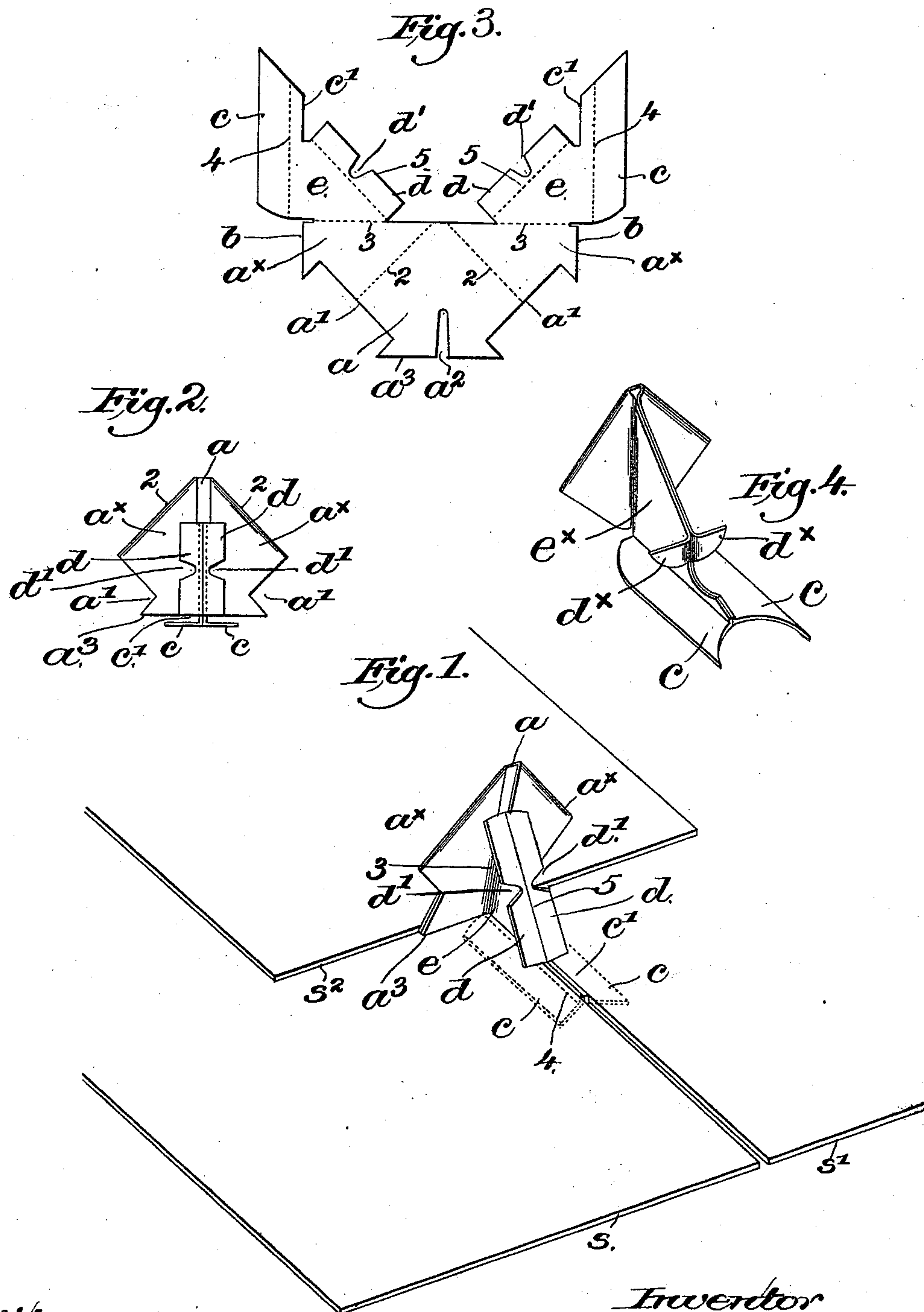


(No Model.)

H. M. ESSELEN.
SNOW GUARD.

No. 511,295.

Patented Dec. 19, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY M. ESSELEN, OF BOSTON, MASSACHUSETTS.

SNOW-GUARD.

SPECIFICATION forming part of Letters Patent No. 511,295, dated December 19, 1893.

Application filed March 24, 1893. Serial No. 467,447. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. ESSELEN, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Snow-Guards, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the improvement of the snow guard shown and described in United States Patent No. 190,204, dated May 1, 1877, whereby my improved guard is rendered more rigid and stiff, and is more securely retained in place on the roof.

In accordance therewith my invention consists of a sheet metal snow guard composed of outwardly extended supporting wings, an upturned snow stop integral therewith, and having a flat extended foot, and a body portion rigidly connecting said stop and wings, and in a plane at right angles to both, substantially as will be described.

Other features of my invention will be hereinafter described and particularly pointed out in the claims.

Figure 1 is a perspective view of a portion of a slate or shingle roof, with a snow guard secured thereto in accordance with my invention. Fig. 2 is a rear end view of a snow guard detached. Fig. 3 is a plan view of a piece of sheet metal before it is bent up into the form shown in Fig. 1, and Fig. 4 is a modification to be referred to.

As herein shown my improved snow guard is composed of a single piece of sheet metal, stamped or cut out in any usual way, the sheet metal giving great rigidity and stiffness and being cheap to manufacture.

The piece of sheet metal, shaped substantially as shown in Fig. 3, is bent up in the dotted lines 3, 3, until the portions *e* are substantially at right angles with the parts *a*^x. The wings *c*, *c*, are then bent up along the dotted lines 4, 4, until the flanges *c'* are at right angles thereto, or substantially so, and the parts *d*, *d*, which form the braces, are bent up in the lines 5, 5, toward the operator after the guard has been put in place on the roof, said parts *d*, *d*, being notched at *d'*, for a purpose to be described. The metal is there-

after bent in the opposite direction, or down, along the lines 2, 2, until the rear faces *a*^x are close to or in contact with the front face *a* of the snow stop, bringing the two parts *e* of the body portion, and the flanges *c'* of the wings substantially in contact, as in Figs. 1 and 2, the guard then being ready for use, the part *a* having a central notch *a*², as shown, in its flat extended foot *a*³. To apply the guard the outwardly extended wings *c*, *c*, are placed beneath the lower edges of adjacent slates *s*, *s'*, of a course, the flanges *c'* and body portions *e* projecting between the slates, as shown in Fig. 1, and the guard is pushed up until stopped by the overlapping slate *s*² of the course above, whereby the snow stop *a*, *a*^x, is brought into position against the lower edge of and substantially at right angles to said slate *s*², and with its flat extended foot resting upon the tops of the adjacent slates *s*, *s'*. In order to support the stop more rigidly, the upper ends of the lateral braces *d*, *d*, above the notches *d'*, are then bent out to bear against the back of the stop to prevent twisting thereof on or about the body portion. The lower ends of the braces below the notches *d* are bent out until they rest against the tops of the slates *s*, *s'*, thereby preventing displacement of the guard.

Should the space between the two courses be large the wings *c* may be bent downward, as shown by dotted lines Fig. 1, their spring action serving to retain the guard firmly in place.

From the foregoing it will be seen that no nails or other fastenings are required to hold the guard securely in place, and, furthermore, it may be applied to a finished slate or shingle roof, as has been described.

While I have spoken hereinbefore and in the following claims of slate, by such term I include shingles or their equivalents, and wish the term to be so understood.

I have herein shown the front *a* and back *a*^x of the stop notched, as at *a'*, but such notches may be omitted, if desired. The edges *b* of the back parts *a*^x of the stop, when folded coincide substantially with the foot *a*³ of the part *a*, see Fig. 3, forming a foot or base for the stop extended on each side of the body

portion, thereby preventing tipping of the stop, which would so twist the guard as to render it worthless.

In the modification shown in Fig. 4, I have formed the retaining braces d^x from the body portion e^x directly, by cutting the said body portion as shown, and thereafter bending the ears or braces d^x outward to rest upon the tops of the adjacent slates, to retain the guard firmly in place.

This invention is not limited to the exact shape of the finished guard, nor to the various parts thereof, nor to the exact shape of the piece of metal from which it is made, and it is obvious that either the upper or lower ends of the lateral braces d , d , may be turned out, or both may be turned out as shown in the drawings.

I claim—

1. A sheet metal snow guard composed of outwardly extended supporting wings, an up-turned snow stop integral therewith, and having a flat extended foot to rest upon the slates, and a body portion rigidly connecting said stop and wings, and in a plane at right angles to both, substantially as described.

2. A sheet metal snow guard composed of outwardly extended supporting wings bent

up at their inner edges to form a body portion, outwardly turned ears or braces thereon to rest upon the top of and grip the slate, and a snow stop integral with and at right angles to said body portion and wings, substantially as described.

3. A sheet metal snow guard composed of wings to be held by and beneath two adjacent slates of a course, a snow stop adapted to rest on the upper surfaces of said slates, a rigid body connecting said stop and wings, and lateral outwardly turned braces secured thereto and interposed between the tops of the adjacent slates and the back of the stop, substantially as described.

4. A snow guard composed of sheet metal bent to form a snow stop, a body portion having outwardly turned braces to bear against the back of and support the stop, and with out-turned wings integral with said body portion, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY M. ESSELEN.

Witnesses:

GEO. W. GREGORY,
JOHN C. EDWARDS.