

P. A. DUGAN.
 SNOW-GUARDS FOR ROOFS.

No. 193,809.

Patented Aug. 7, 1877.

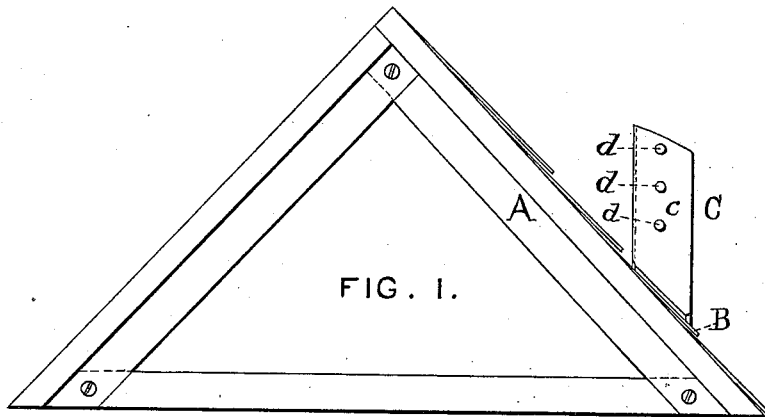
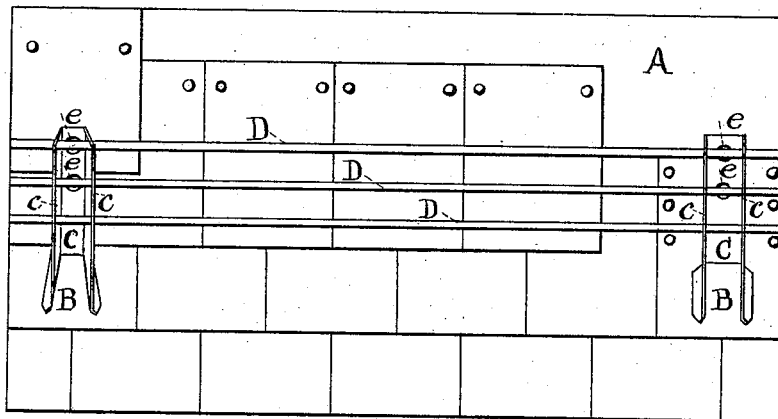


FIG. 1.

FIG. 2.



WITNESSES.

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IMPROVEMENT IN SNOW-GUARDS FOR ROOFS.

Specification forming part of Letters Patent No. 193,809, dated August 7, 1877; application filed April 14, 1877.

To all whom it may concern:

Be it known that I, PHILIP A. DUGAN, of Brooklyn, Kings county, New York, have invented, made, and applied to use Improvements in the Construction of Snow-Guards for the Roofs of Buildings; and that the following is a full, clear, and correct description of my invention, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is an end view of the roof of a building to which my snow-guard has been applied. Fig. 2 is a front view of the same.

In the drawings like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists in improvements on the patent granted to me March 13, 1877, No. 188,287, for improvements in the construction of snow-guards for houses or dwellings provided with peaked or slanting roofs.

The object of the invention is to prevent the fall of snow or ice in large quantities from the roof upon which it has lodged or been formed, which is of frequent occurrence where snow-guards are not employed, endangering life and destroying property to a certain extent.

To enable others skilled in the arts to make and use my invention, I will describe the construction and operation of the same.

A shows the peaked or slanting roof of a house or building to which my invention has been applied. B shows what I term the "slate" or "shingle," composed of iron or any suitable material, for receiving the double-flanged support C for the guard. This iron plate or shingle B is secured to the roof A, forming one of the courses of slate or shingles, and is provided with the support C for the snow-

guard welded to it; or the slate and support may be cast or rolled in one piece.

The support C consists of a plate of metal folded or formed so that the folded or formed portions form wings or sides *e*, extending from and in front of the back portion of the plate, and then secured to the iron slate or shingle by welding or otherwise.

The projecting sides or wings are provided with a series of openings, *d*, rising above and in line with each other for the introduction of a snow-guard, composed of a series of rods, D; or if the snow-guard is to be composed of a board or plate of metal, the same is attached to the openings *e* in the back portion of the supports C.

The number of supports C and lengths of rods or board required will depend entirely upon the length of roof to be protected, the supports being placed about six feet apart, or less, if required.

Such being the construction, it will be seen that the object of the invention is fully accomplished, and that the fall of large bodies of snow or ice from the roof to which the snow-guard has been applied will be prevented. Aside from this, the guard can be easily and cheaply applied to a roof, and, when not required, the rods or board of which it is formed can be easily removed.

Having now set forth my invention, what I claim as new is—

The combination of the iron slates or shingles B, provided with the supports C, having the openings *d* and *e*, and a snow-guard formed of a series of rods, D, constructed and operating substantially as and for the purpose set forth.

PHILIP A. DUGAN.

In presence of—

A. SIDNEY DOANE,
W. V. H. HICKS.