

(No Model.)

L. T. HOUGHTON & A. A. BARKER.  
SNOW GUARD.

No. 432,408.

Patented July 15, 1890.

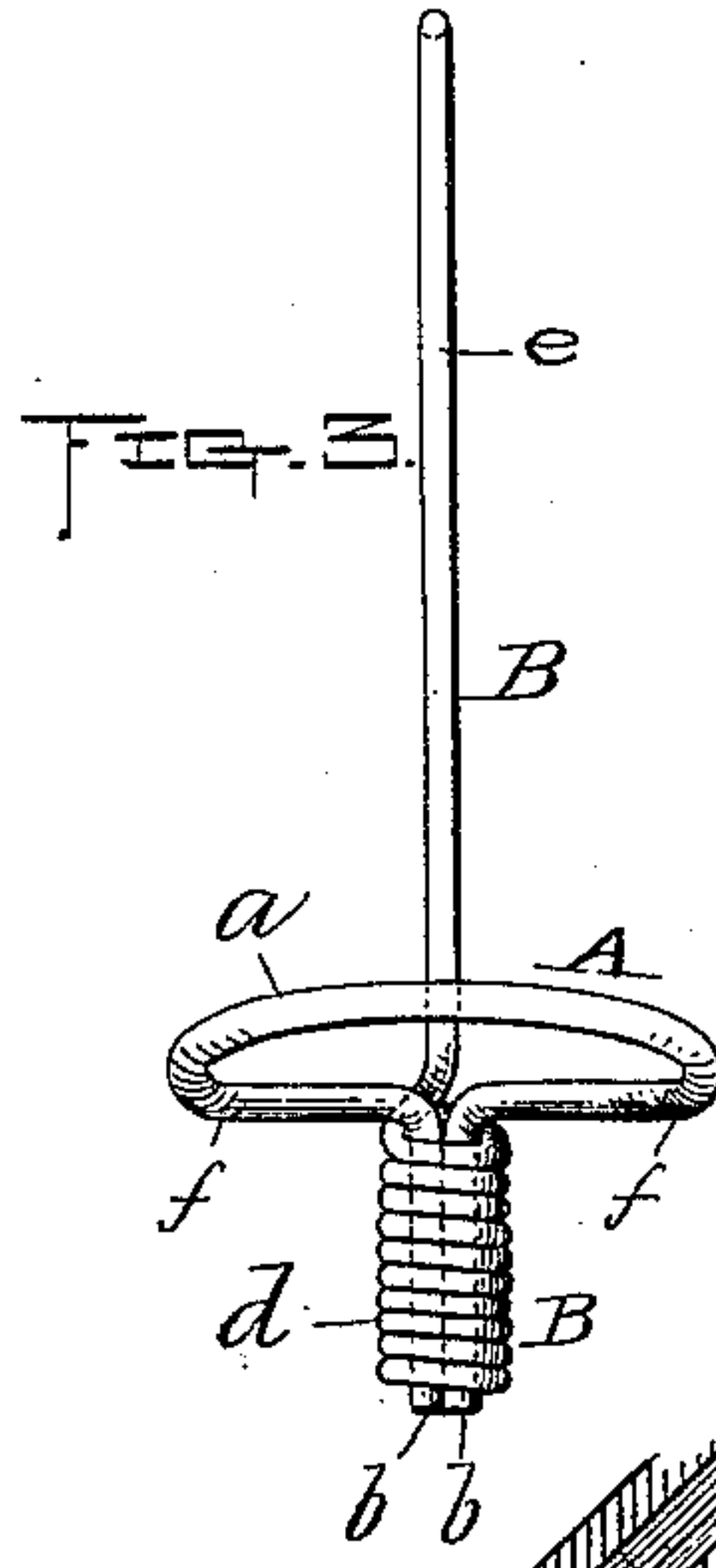
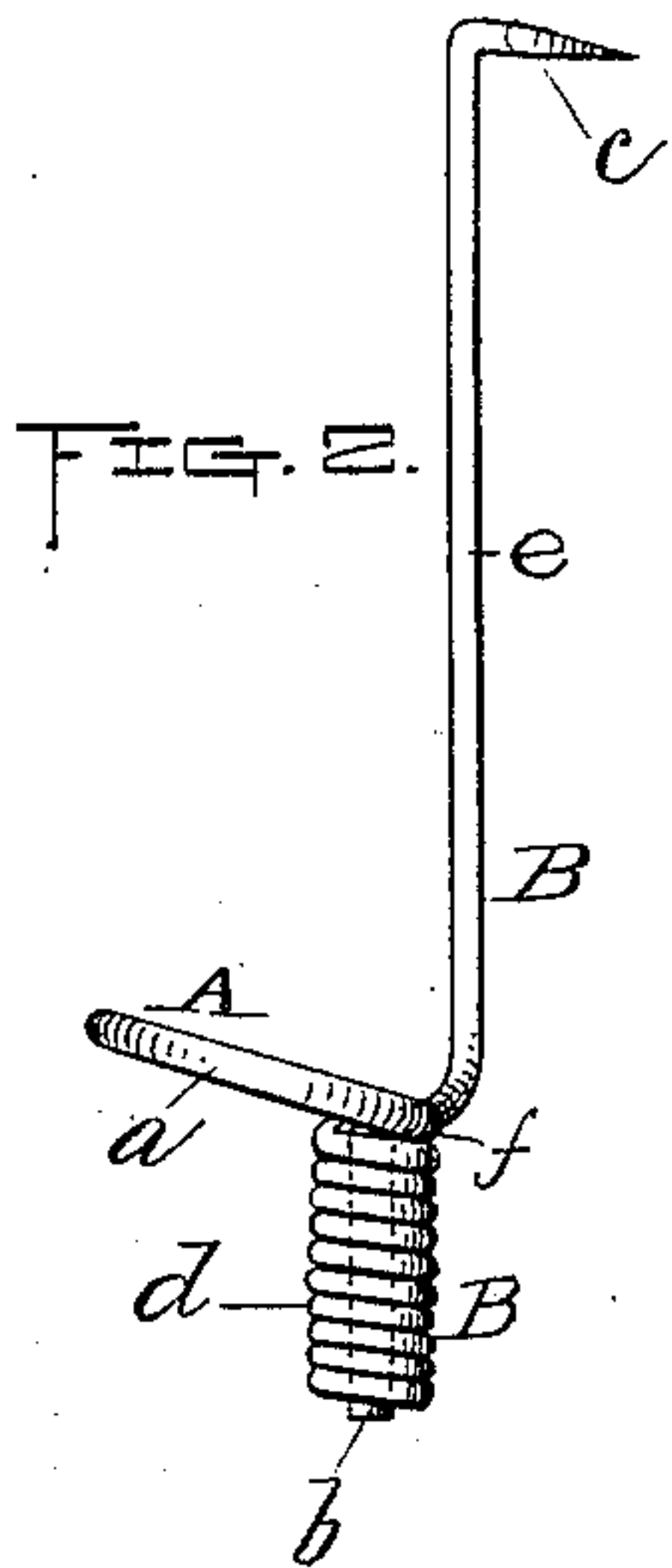
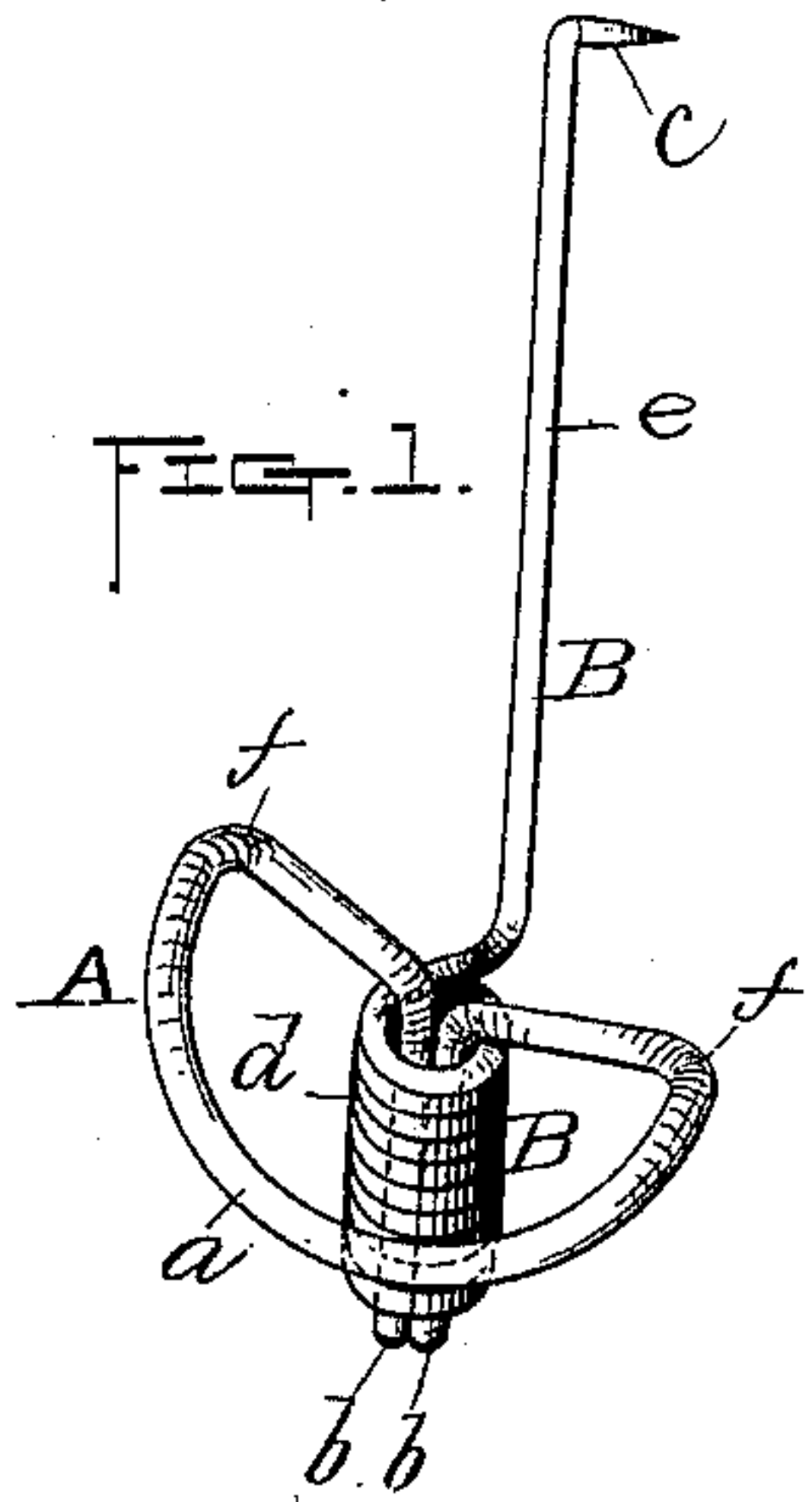


FIG. 4.

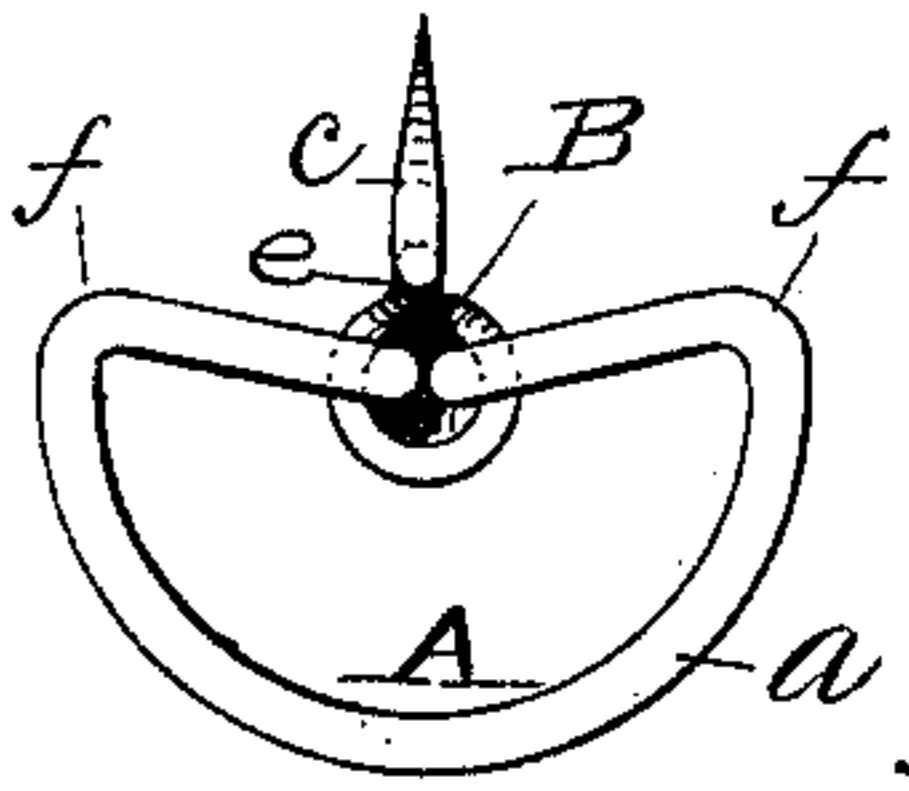


FIG. 5.

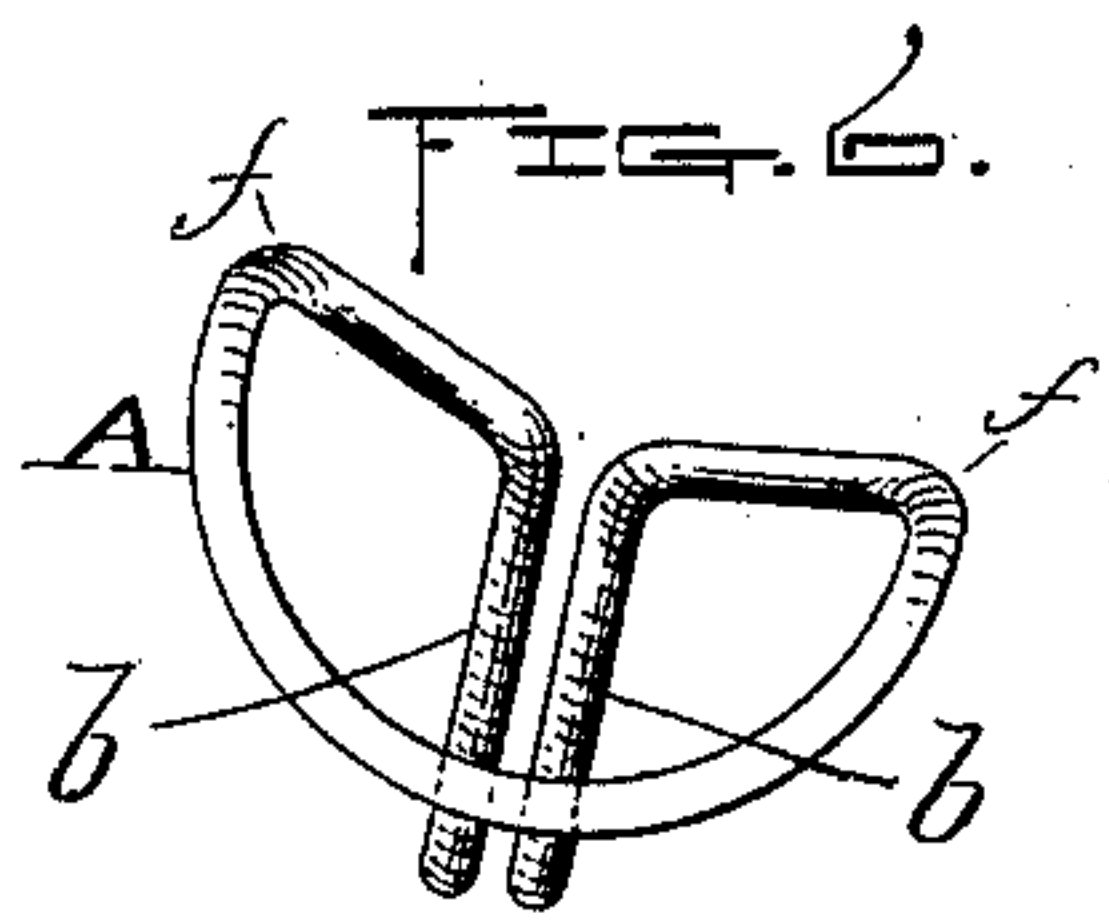
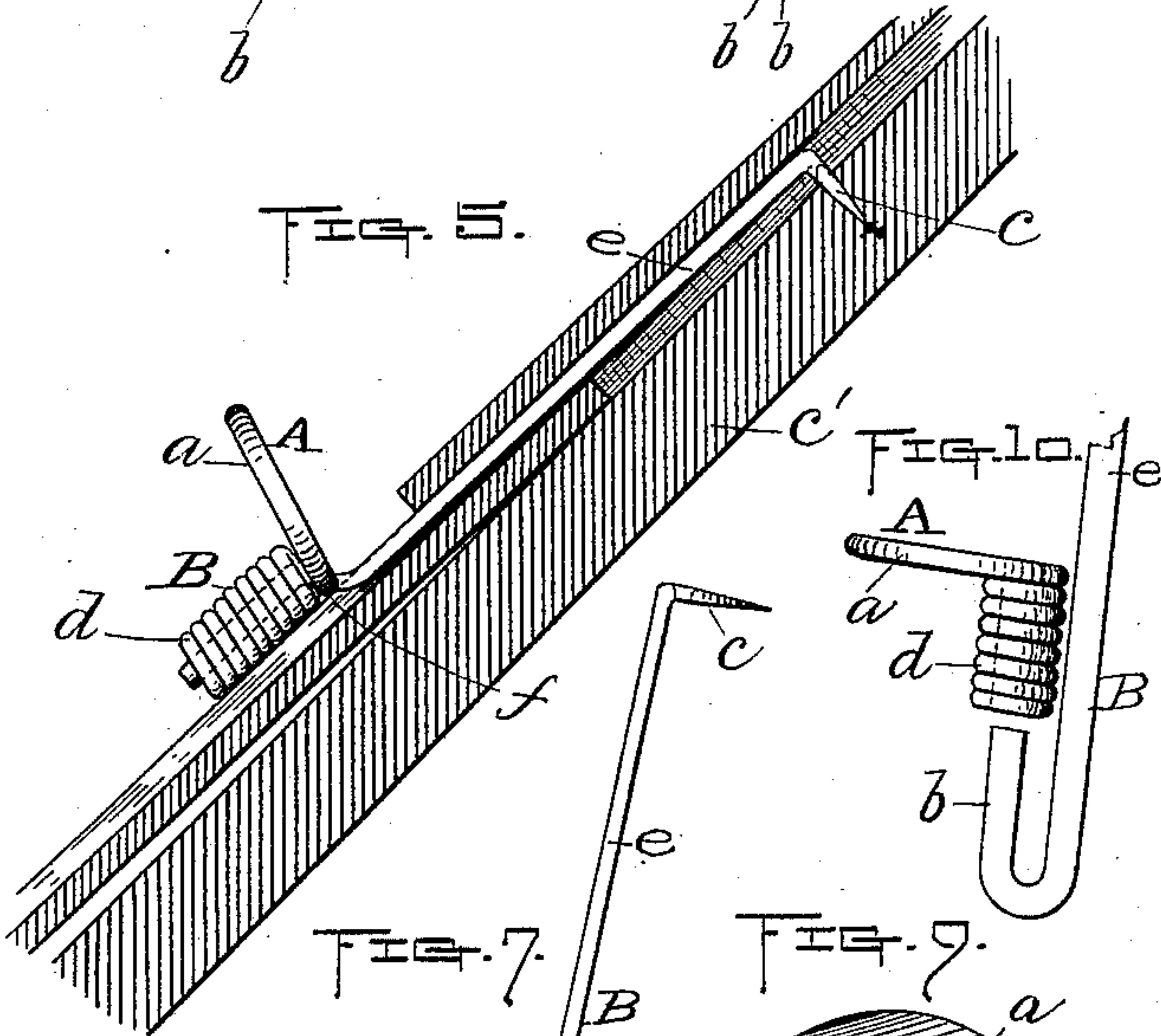
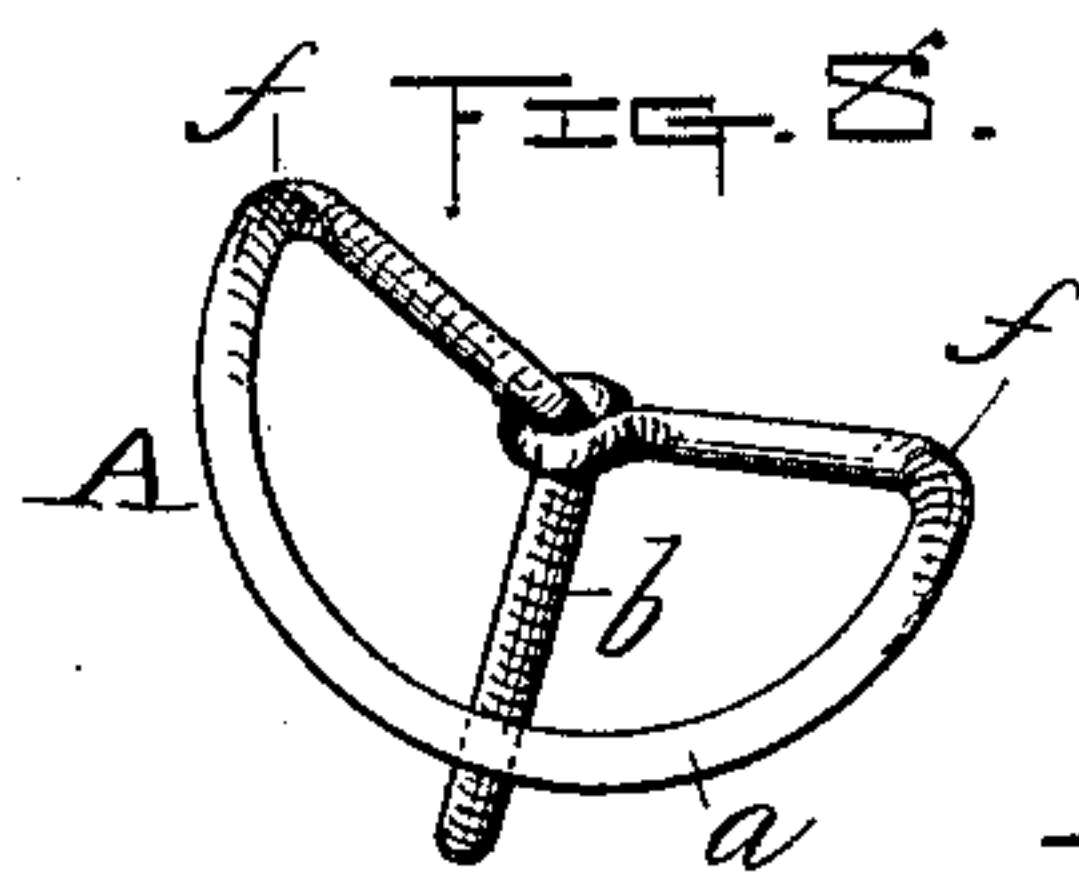
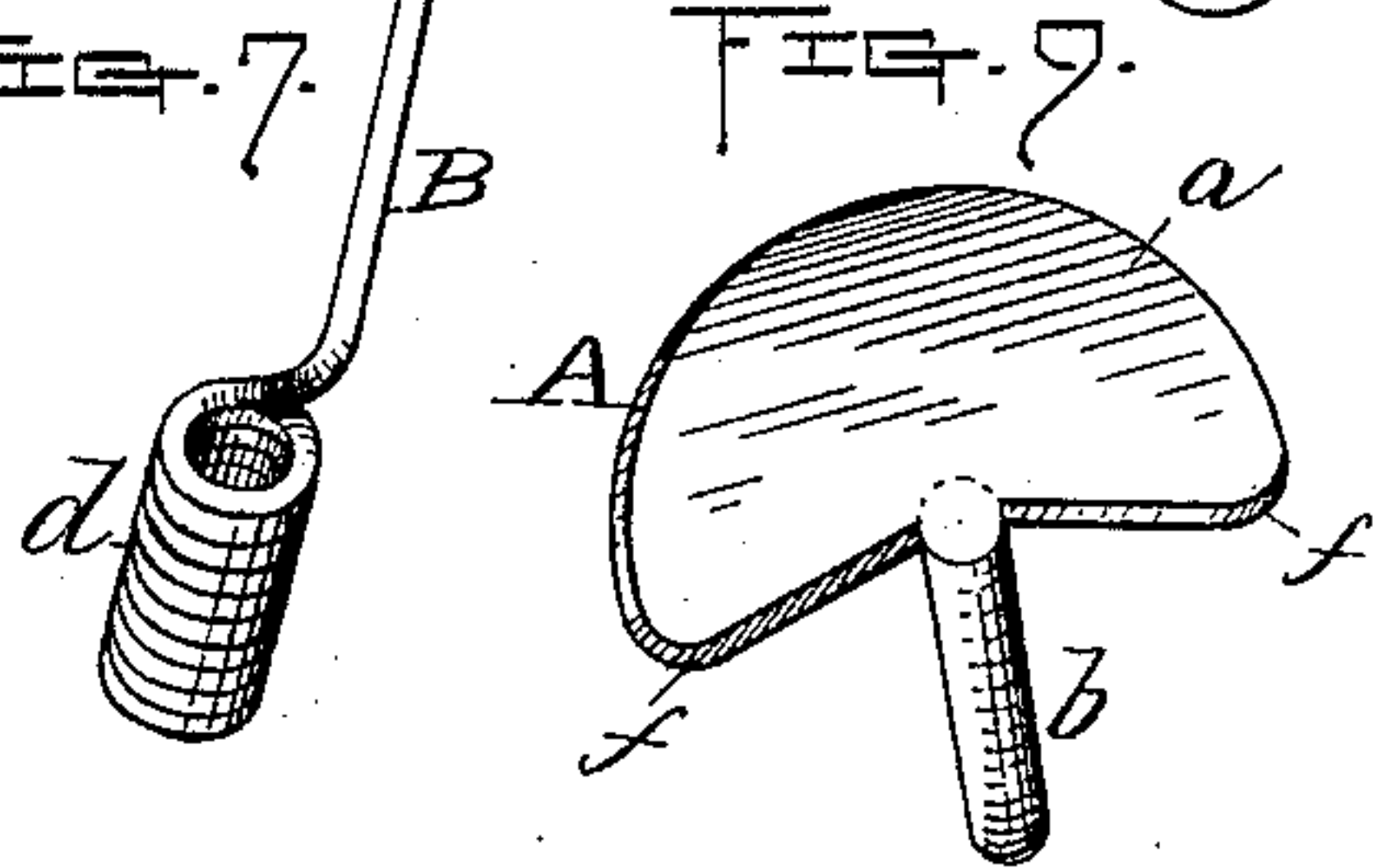


FIG. 7.



Witnesses;

Inventors;

Walter B. Nourse.  
C. Forrest Kinn.

Lewis T. Houghton  
Albert A. Barker.



# UNITED STATES PATENT OFFICE.

LEWIS T. HOUGHTON AND ALBERT A. BARKER, OF WORCESTER,  
MASSACHUSETTS.

## SNOW-GUARD.

SPECIFICATION forming part of Letters Patent No. 432,408, dated July 15, 1890.

Application filed March 22, 1890. Serial No. 344,980. (No model.)

*To all whom it may concern:*

Be it known that we, LEWIS T. HOUGHTON and ALBERT A. BARKER, both of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Snow-Guards; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a perspective view of our improved snow-guard. Figs. 2, 3, and 4 are a side, front, and plan view thereof, respectively. Fig. 5 represents a vertical section through part of a roof with the snow-guard applied thereto. Figs. 6 and 7 are detached perspective views of the two wire parts composing said snow-guard, and Figs. 8 and 9 show modifications in the construction of the snow-stop hereinafter described. Fig. 10 is a view with the parts detached, illustrating a modification.

Our invention relates to that class of snow-guards which are disposed at the slate-joints over the surface of a roof, and more particularly to those made from wire.

It consists of two detachable parts, one forming the snow-stop and the other the support thereof, said supporting part being provided with a hook or spur at its upper end, adapted to be driven into the roof-boarding, and its lower end formed to receive and hold the snow-stop, as will be hereinafter more fully set forth.

In the drawings, A represents said snow-stop, and B its support, each being made, preferably, from a single piece of wire. The lower part or snow-stop A is bent to form the loop or body *a* (preferably semicircular in shape) and the shank or holding part *b*, the latter extending down at about right angles from the point where the two halves of the wire meet at the back in the formation of said loop or body, while the upper or supporting part B is made with a backwardly-projecting hook or spur *c* at its upper end, adapted to be driven into the roof-boarding *c'* to hold the guard in position vertically when applied to the roof, as is shown in Fig. 5, and its lower end is provided with a spiral-coil socket *d* to

receive the shank or holding part *b* of stop A, said shank being inserted into the socket from the top, as is shown in the various figures of the drawings. Said socket is made by bending the wire into the form of a spiral coil, having a sufficient number of helices in its formation to properly hold the stop A in position, and in order that said stop may be held securely therein from being pulled out it is preferably made with the shank or holding wires *b b* a little apart, as is shown in Fig. 6, so as to necessitate their being sprung together in fitting the same thereto, the outward pressure of the wires thereby retaining it in position, as aforesaid.

The support B is held in position vertically by the hook or spur *c*, as previously described, and laterally by the straight portion or shank *e* thereof resting in the joint between two abutting slates and by one of the slates of the next course above coming down over and bearing upon the top of said shank for a considerable distance down from its upper end, as is shown in Fig. 5. It will thus be seen that the guard is held securely against displacement in all directions after having been fitted and secured upon the roof, while at the same time they may be applied in a very easy and expeditious manner, as each course of slate is laid.

The stop A is held in position laterally by the back corners *ff* thereof resting upon the surfaces of the slates. As the wire composing said stop may be bent into various shapes to accomplish the same result, we do not limit ourselves to the shape previously described and shown in the drawings, the essential feature we desire to cover being not in the special construction of the stop, but in the support and its combination with a suitable stop having a shank adapted to be fitted to said support, in the manner described.

We are aware that it is not broadly new to make snow-guards of wire, or to make them in two parts, one of wire and the other of sheet metal, and therefore we limit our invention to the construction herein set forth.

In Fig. 8 we have shown the snow-stop A as having only one shank-wire *b*, the other being made shorter and the end coiled round the other half of the wire where the two



halves come together at the back of the loop or body *a* of said stop.

Although the first-described construction is preferable, it will be apparent that said modified construction or others of a similar nature—as, for instance, like the one shown in Fig. 9, made of sheet metal or cast in one piece with a shank *b* projecting down therefrom, as in the ones made from wire—may be adopted without departing from the principle of our invention.

We claim two essential and important advantages by our construction in this class of snow-guards, viz:

15 By making the snow-stop and its support in two separate parts, with the support of wire bent into the shape described, smaller wire may be used for the supporting part. Consequently the slates may be laid with comparatively close joints, thereby not only rendering the roof less liable to leakage, but at the same time detracting less from its appearance than by the use of snow-guards necessitating the slates being laid with wider joints.

25 The other advantage derived by the application of our invention to practice is that the lower parts or snow-stops *A* may be applied to the roof after the slating is fully or partially done, thus rendering the work of slating much more convenient than if said stops were permanently secured to the supports, and it will be apparent that the sockets, being made in the form of spiral coils, as shown, are not liable to be compressed or flattened out of shape by the feet of the slaters or otherwise, and are therefore always in condition for the stops to be applied without difficulty or inconvenience.

40 An equivalent of the socket-and-shank construction may be obtained by a reversal of

said socket and shank—that is, the socket may be formed on the body of the stop in place of the shank, and the bottom of the support provided with an upturned shank, over which said socket may be fitted, as is shown in Fig. 10.

Having now fully described our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

1. In a snow-guard, the combination of the supporting part *B*, having a hook or spur at its upper end, adapted to be driven into the roof-boarding, with the snow-stop *A*, one part having a shank formed thereon and the other a spiral-coil socket, into which said shank fits to support said stop on the lower end of the support, substantially as and for the purpose set forth.

2. A snow-guard comprising the two separate detachable parts *A* and *B*, the part *A*, constituting the snow-stop, consisting of the body *a* and shank *b*, and the part *B*, constituting the support for said snow-stop, having the hook or spur *c* at its upper end, adapted to be driven into the roof-boarding, and with the spiral-coil socket *d* at its lower end, adapted to receive and hold the shank of the snow-stop, substantially as shown and specified.

3. In a snow-guard, the wire-supporting part *B*, bent to form the hook or spur *c* at its upper end, adapted to be driven into the roof-boarding, and the spiral-coil socket *d* at its lower end, adapted to receive and hold the shank of the snow-stop, substantially as shown and specified.

LEWIS T. HOUGHTON.  
ALBERT A. BARKER.

Witnesses:

W. B. NOURSE,  
C. FORREST WESSON.