No. 695,523. Patented Mar. 18, 1902.

G. T. WILLIAMS.

SHEET METAL COVERING FOR ROOFS OR OTHER SURFACES AND FASTENING DEVICE THEREFOR.

(Application filed Mar. 2, 1901.)

(No Model.)

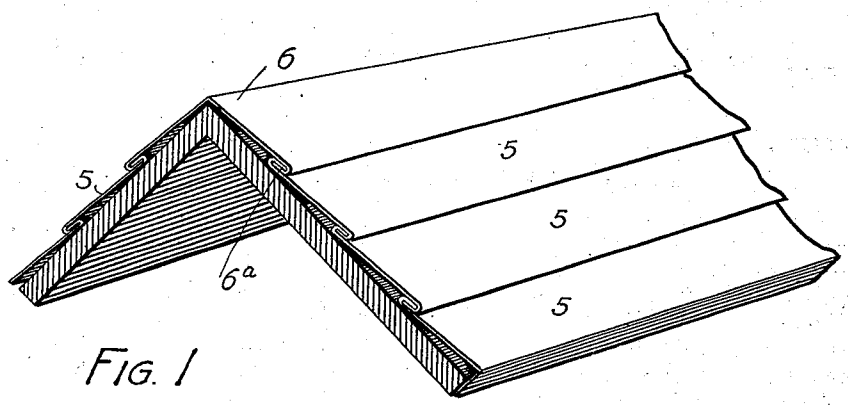


FIG. 1

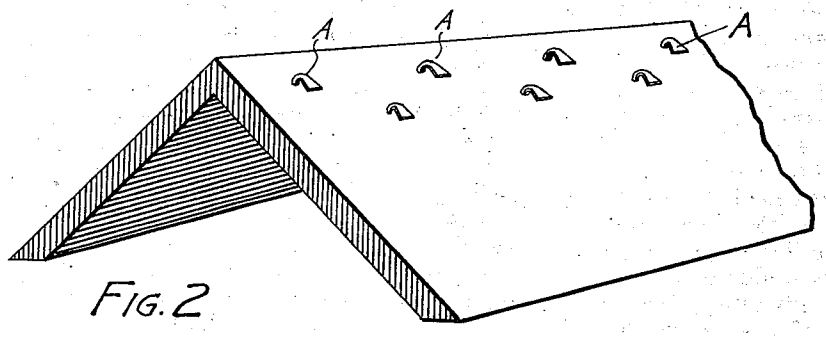


FIG. 2

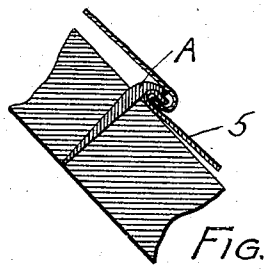


FIG. 3

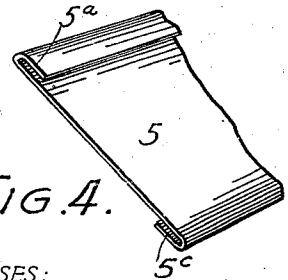


FIG. 4.

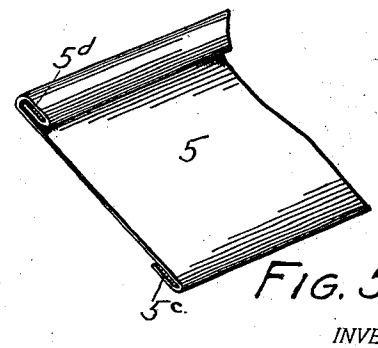


FIG. 5.

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GEORGE T. WILLIAMS, OF DENVER, COLORADO.

SHEET-METAL COVERING FOR ROOFS OR OTHER SURFACES AND FASTENING DEVICE THEREFOR.

SPECIFICATION forming part of Letters Patent No. 695,523, dated March 18, 1902.

Application filed March 2, 1901. Serial No. 49,658. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. WILLIAMS, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Sheet-Metal Coverings for Roofs or other Surfaces and Fastening Devices Therefor; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in sheet-metal covering for the roofs or walls of buildings and other structures and will be described in this specification with special reference to its use for roofing purposes, though it must be understood that it may be employed to equal advantage as a sheeting for surfaces or walls of any description.

My special object is to provide an article of this class which may be applied or attached without soldering and at comparatively small cost, which may also be readily detached, if desired.

My further object is to provide a covering for roofs or other surfaces which shall be reliable, durable, and efficient in use; and to these ends the invention consists of the features, arrangements, and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a section taken through a roof, showing my improvement applied. Fig. 2 is a section of a roof, showing a number of my fastening devices, the roofing-sections being removed. Fig. 3 is a section taken through a roof, illustrating my improvement on a larger scale. Fig. 4 is a perspective view in detail of a piece of sheet metal, as tin, bent to conform to my improvement. Fig. 5 is a similar view showing a slightly-modified form of construction.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate a piece of sheet metal, as roofing-tin, whose parallel longitudinal edges are bent in opposite directions, as shown at 5^a and 5^c. The upper edge (assuming that the sheet-metal part is employed on a slanting roof, as shown in the drawings) is bent outwardly and the lower edge is bent inwardly or toward the surface to which the roofing is to be applied. The upper or outwardly-bent edge 5^a of each piece or section of sheet metal is arranged to interlock with the inwardly turned or bent lower edge 5^c of the upper section or piece of metal, whereby when the parts are hammered tightly together a water-tight seam or joint is formed. The upper edge 5^a is first secured in place by the fastening device A. This device is attached to the board or other surface to be covered with the sheet metal. It consists of a nail or brad driven into the wood of said surface and having its head or outer extremity bent downwardly to overlap the upper edge 5^a of the metal part 5. This overlapping portion of the brad is formed smooth and flat to prevent it from indenting the tin from below and to prevent any tendency to form a hole therein. The lower edge of the lowermost section or part 5 is secured to the lower edge of the roof or surface to be covered in any suitable manner, as by nails. (See Fig. 1.) The upper edge is then detachably secured by the device A. The lower inwardly-turned edge 5^c of the next part 5 above is then hooked under the edge 5^a of the lower part and the two interlocked edges hammered down to form a tight joint or seam. The upper free edge of the upper section is then detachably fastened, as before described when speaking of the upper edge of the lower section or part 5, after which the lower edge 5^c of the section next above is hooked under the edge 5^a to form an interlocking connection, which when hammered down forms a tight joint or seam, and this operation is repeated on both sides of the sloping roofing-surface until the apex is reached. An angle-piece 6, shaped to fit the apex of the roof and having inwardly-turned edges 6^a, is then employed. These inwardly-turned edges are interlocked with the outwardly-turned edges 5^a of the section 5 on each side of the apex, and the angle-piece 6 is then caused to slide along the apex of the roof while interlocked with the edges 5^a the entire length of the latter. The inter-

locked edges are then hammered down to form tight joints or seams in the manner heretofore explained. The edges of the sections 5 may be given a double bend, as shown at 5^a, Fig. 7, if desired.

While this roofing is fastened sufficiently securely for all practical purposes, it is evident that it may be removed by first detaching the apex part 6 and then removing the remainder on both sides a section at a time. It is preferred to have the strips 5 made of a length to correspond with the entire length of the roof, so that no end joints or seams will be required.

Attention is called to the fact that an important advantage of my improvement consists in the fact that by reason of the fastening means employed the sheet-metal covering is secured to the stationary part of the roof or other surface over its entire area, while with soldered roofing or sheeting the covering is only secured at the outer edges, and if it becomes loosened on one of these edges the entire covering may be removed by a heavy wind.

Having thus described my invention, what I claim is—

1. The herein-described sheet-metal covering for roofs or other surfaces, comprising pieces or sections of sheet metal, each of which has its longitudinal edges bent outwardly and inwardly respectively, a fastening device consisting of a shank driven into the surface to be covered, and having a head extending at an angle to the shank and overlapping the outwardly-turned edge of one section, whereby the latter is locked in place, the inwardly-turned edge of the adjacent section being arranged to interlock with the said outwardly-turned edge of the fastened section and so on until any desired surface area is covered.

2. A sheet-metal covering for roofs or other surfaces, comprising a number of sections, each of which has one edge outwardly bent and turned back toward the body of the section, and the other edge bent inwardly and turned back toward the body of the section or part, means for detachably securing the outwardly-turned edge of each section, comprising fastening devices having shanks driven into the roof-sheathing and having angle-heads overlapping the outwardly-turned edge of the section, the arrangement being such that the inwardly-turned edge of any section interlocks with the outwardly-turned edge of the adjacent section, the section having the inwardly-turned edge, being arranged to cover the fastening means of the section having the outwardly-turned coöperating edge, the interlocking edges when pressed or hammered together, forming a tight joint or seam.

3. A sheet-metal covering for roofs or other surfaces, comprising a section having an outwardly-turned edge, a fastening device having a shank adapted to be driven into the roof-sheathing, and an angle-head adapted to overlap the outwardly-turned edge of the section, whereby the section is detachably secured in place, and another section concealing the fastening means of the first section and having an inwardly-turned edge arranged to interlock with the outwardly-turned edge of the adjacent section, whereby the two interlocking edges when pressed together form a tight joint or seam.

4. A sheet-metal covering for apex roofs, comprising sections each of which has an inwardly-turned lower edge and an outwardly-turned upper edge, nails fastened to the surface to be covered, and having bent heads overlapping the upper edge of each section, whereby the section is detachably held in place, the lower inwardly-turned edge of each section being arranged to interlock with the outwardly-turned edge of the adjacent section, the upper section always concealing the fastening means of the lower section, and a section shaped to conform to the apex of the roof, and having inwardly-turned edges arranged to interlock with the outwardly-turned edges of the adjacent section on opposite sides of the apex.

5. A sheet-metal covering for roofs and other surfaces, said covering being composed of sections and fastening devices secured to the covered surface and concealed by the said covering, the fastening devices being composed of nails whose shanks are adapted to be driven into the sheathing, said nails having heads bent at an angle to their shanks and arranged to overlap the concealed edges of, without penetrating the said sections.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE T. WILLIAMS.

Witnesses:
DORA C. SHICK,
MARY C. LAMB.