

No. 615,178.

Patented Nov. 29, 1898.

C. E. HOOPER.
METALLIC ROOFING.

(Application filed Jan. 25, 1898.)

(No Model.)

Fig. 1.

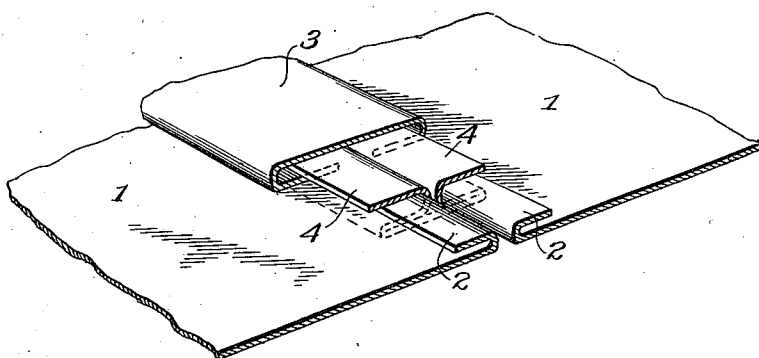
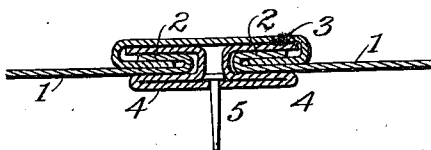


Fig. 2.



Witnesses:
James F. Duhamel.
[Signature]

Inventor;
CLARENCE E. HOOPER.

by *[Signature]*
his attorney.

UNITED STATES PATENT OFFICE.

CLARENCE E. HOOPER, OF BALTIMORE, MARYLAND.

METALLIC ROOFING.

SPECIFICATION forming part of Letters Patent No. 615,178, dated November 29, 1898.

Application filed January 25, 1898. Serial No. 667,852. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE E. HOOPER, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Metallic Roofing; and I do hereby 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.

My invention relates to improvements in metallic coverings for roofs of houses, railroad-cars, or awnings, barns, and like structures.

The main object of my invention consists in the novel means of first securing the bent holding-strip to the sheathing previous to receiving the roofing-sheets and the protecting-strip, which enables me to readily apply the sheets by simply abutting them against the fastened holding-strip in succession, and finally applying the protecting-strips after the roof has been roughly laid.

Another object is the provision of a metallic roofing which when applied to the roofs of railroad-cars subjected to longitudinal and twisting strains the sheets will not be liable to buckle, as would be the case if each sheet was separately nailed to the roof, as heretofore practiced.

The advantages gained by the construction and application of my invention are the simple manner of folding the sheets and their binding-strips and the rapidity with which a roof can be laid and the water-tight condition of the joints.

To attain the desired objects, the invention consists of a metallic roofing for the purposes named embodying novel features of construction and combination of parts, substantially as disclosed herein.

Figure 1 represents a top perspective view of my improved roofing, showing clearly the holding-strip attached to the roof by nails, the sheets with their folded edges abutting in the recesses of the holding-strip, and the protecting cap or strip spanning and covering the edges of the holding-strip and sheets. Fig. 2 is an end sectional view showing the method of constructing my improved joint and the manner of fastening the holding-strip to the roof.

The roofing consists of the usual commercial sheets of galvanized iron 1, having their edges bent and folded upward and inward to form the lap-over flanges 2, and it will be noticed that their lap-over flanges are bent on a parallel line with the body of the sheet, leaving only sufficient space to receive the single thickness of one edge of the folded protecting-strip 3. The protecting cap or strip 3 has its edges bent down and under and on a parallel line with the top surface, leaving them a distance apart sufficient to grasp the abutting folds of the sheets and the holding or fastening strip 4 and leaving sufficient recess or space between the flanges and the body to admit of receiving and holding the lap-over flanges of 2 and 4, as shown in Fig. 1. The fastening-strip 4 is an important element of my invention, as it performs the function of holding the sheets together in combination with the protecting-cap 3 and of fastening the roofing-sheets to the sheathing or roof of the structure to be covered by means of nails 5, passing through the center of its body, as shown in Fig. 2. The fastening-strip 4 is made by folding the edges of a strip of sheet metal inward, upward, and outward, leaving a double channel for the reception of the folded edges of the sheets 2 and the edges of the protecting cap or strip 3. A sufficient space is left between the lap-over corners of the fastening-strip 4 to allow a series of nails to be driven through the strip into the sheathing to hold the strip in place.

In practice the commercial sheets of galvanized iron or steel have their edges folded over, as described, and the strips indicated as the cap 3 and the fastening-strip 4 are formed parallel without any flare, as shown and described. To apply this roof-covering to the roof-boards or rafters, the operator begins at either gable end of the car or house and nails one edge, which is plain, to the edge of the boards or rafters, and the one which is folded is inserted into the channel of the fastening-strip 4. The fastening-strip is next nailed down without disturbing the channels or closing the space. The next sheet is inserted into the other channel, and another fastening-strip is inserted and nailed, and the operation repeated until the entire roof is covered on either side. The work being now

open for final inspection to see that the sheets and strips are in perfect alinement and the nails driven home, the protecting cap or strip 3 is inserted over each joint, and the operator now hammers down the entire joint, leaving no space for water to enter, and thus forming a joint which while elastic and yielding under different conditions of temperature and strains will not buckle or pucker up.

10 I claim—

1. In a metallic covering for roofs, the combination of the covering-sheets having their edges folded upward, over and inward toward the center, of a fastening-strip independently attached to the roof and having its edges bent inward, upward and again outward forming two side channels to receive the folded edges of the sheets, and the cap or protecting-strip bent down and around the flanged edges of the covering-sheets and said fastening-strip to grip the same and when clenched down to form a water-tight joint.

2. In a metallic covering for roofs, the combination of the covering-sheets having their edges bent upward, over and inward, toward the center of the sheet on a parallel line with their body portion thus forming lap-over flanges or wings, of a binding and fastening strip having the body or flat portion with its edges bent inward, upward and outward leaving a space in the center for the reception of the fastening-nails, and a channel or recess on each side for the reception of the folded edges of the sheets, and a covering-cap or protector-strip adapted to surround the lap-over edges of the sheets and fastening-strip to grasp and bind the same and make a water-tight joint.

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

CLARENCE E. HOOPER.

Witnesses:

GEO. H. WINCHESTER,
WM. H. JONES.