No. 631,092. Patented Aug. 15, 1899.

H. O. REESE.

METAL ROOFING.

(Application filed Mar. 9, 1899.)

(No Model.)

Fig. 1.

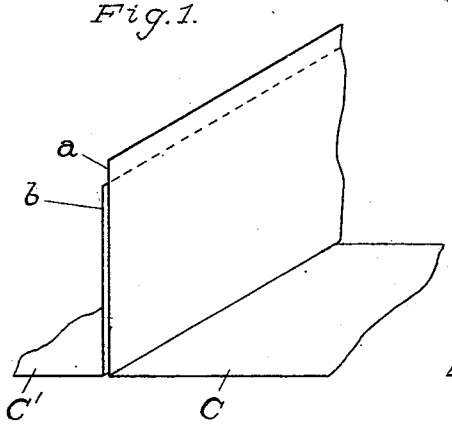


Fig. 2.

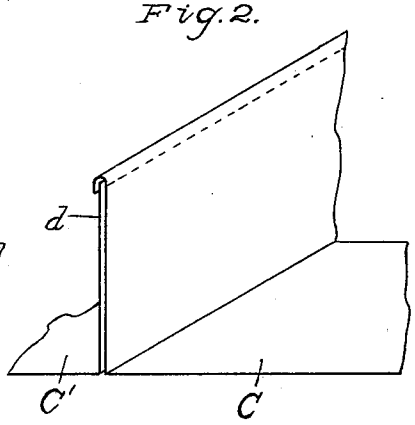


Fig. 3.

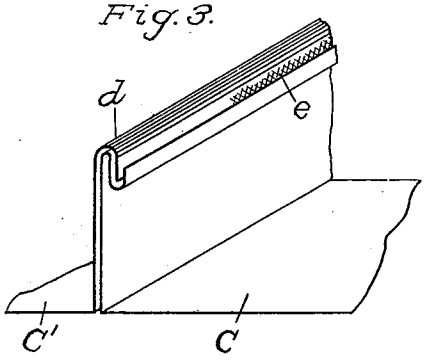


Fig. 4.

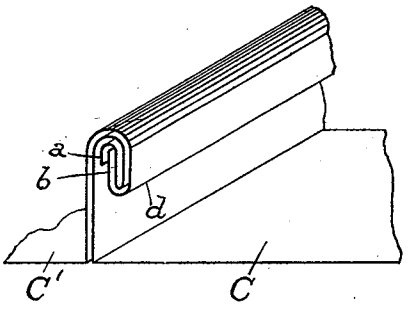
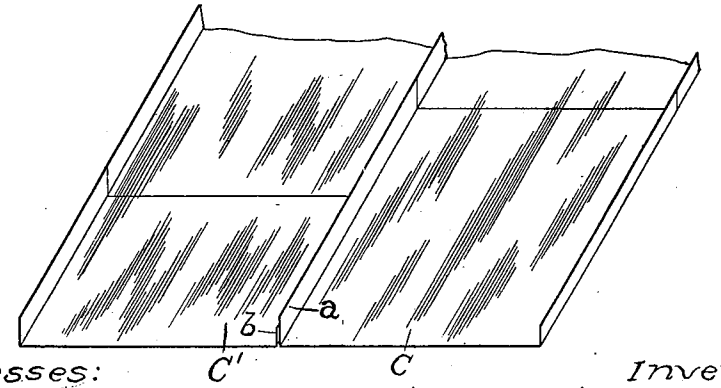


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY O. REESE, OF BALTIMORE, MARYLAND.

METAL ROOFING.

SPECIFICATION forming part of Letters Patent No. 631,092, dated August 15, 1899.

Application filed March 9, 1899. Serial No. 708,303. (No model.)

To all whom it may concern:

Be it known that I, HENRY O. REESE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Metal Roofing, of which the following is a specification.

This invention relates to an improved joint for tin roofs.

The object of the invention is to provide a form of joint for expansible sheet-metal roofs that will admit of being soldered and which will be folded so as to conceal the soldered part.

In that class of tin roofs which have raised or standing joints provision is made for the expansion and contraction of the metal occasioned by hot and cold weather. In practice these standing joints are formed by merely folding the edged portions of two adjoining strips of tin-plate that are turned up, as seen in Figure 5 of the drawings. It is the common experience that in certain conditions of weather, especially in winter when a freeze follows storms of snow and rain and ice and slush accumulate on the roof, these folded joints are apt to leak, and do leak, by reason of the water creeping through the folds of the standing joint. By my invention of folding, soldering, and then folding again these joints are made perfectly tight without interfering with the capacity of the joint to afford the desired action of expansion and contraction.

The invention is illustrated in the accompanying drawings, in which—

Fig. 1 shows a small portion of two adjoining strips of tin-plate for a roof with their upturned edges in position for the first step in the formation of the joint. Fig. 2 shows the same parts and illustrates the first fold. Fig. 3 shows the same parts and illustrates the second fold and the application of the solder. Fig. 4 shows the same parts and illustrates the third fold and the finished joint. Fig. 5 shows on a smaller scale two adjoining strips of tin roofing with edges upturned.

The letters C and C′ designate two adjoining strips of tin roofing with edges upturned in readiness for the formation of the joint. It will be noticed that in the initial stage the turned-up edge *a* of one strip, C, stands higher than the turned-up edge *b* of the other strip, C′. In forming the joint the first fold is made by turning the higher edge *a* over the lower edge *b* and then downward, somewhat as seen in Fig. 2. The only difference between what is done in practice and what is seen in Figs. 1 to 4 is that the folds seen in the drawings are exaggerated as to size and are not closed up tightly as they really are in practice. It has been deemed proper to thus show the folds open in order that the construction might be clearly understood. The second operation consists in bending both upturned edges *a b* at a proper point *d* a little below the first fold and folding both back or in a direction reverse from the first fold, as shown in Fig. 3. This operation places the cut edge, which in the first fold was pointing downward, as in Fig. 2, in an upward position. This position favors soldering. By means of suitable tools solder is applied all along the seam of this upturned cut edge. The solder is indicated at a short length (designated *e*) and is exposed. The third folding operation consists of again bending both upturned edges and folding both in the same direction as the second fold, (see Fig. 4.) This operation places the soldered edge *e*, which before was exposed, within the center of the folded joint, where it is concealed from view and shielded from the action of the weather. This finishes the improved joint.

It will be seen a joint thus made will be perfectly tight and yet will have the capacity of expanding to compensate for extreme cold weather when the broad strips C C′ are contracted.

A tin roof thus constructed may be anchored or fastened to the wooden structure by the same means as that now employed in tin roofs having the ordinary joint.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a sheet-metal roof having a standing joint uniting two adjoining strips, the combination of the first fold of the edge of one strip bent over the edge of the other strip and pointing downward; a second fold of both

edges in a reverse direction from the first fold; a soldered seam along the said bent-over edge of one strip of the first fold; and a final fold of the two edges—that is the edges of both strips—in the same direction as the second fold, whereby the soldered seam is concealed in the center of the joint, as set forth.

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

HENRY O. REESE.

Witnesses:
CHARLES B. MANN, Jr.,
GEO. KOETHER.