May 11, 1926. 1,584,131

E. E. PERRITT

SHEET METAL ROOF CONSTRUCTION

Filed March 11, 1926

Fig. 1.

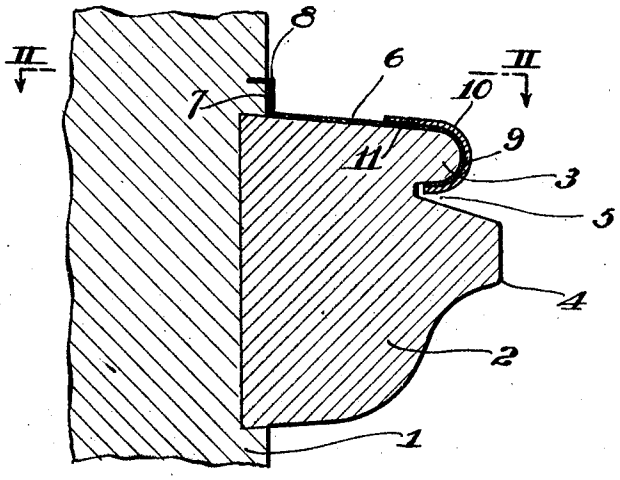


Fig. 2.

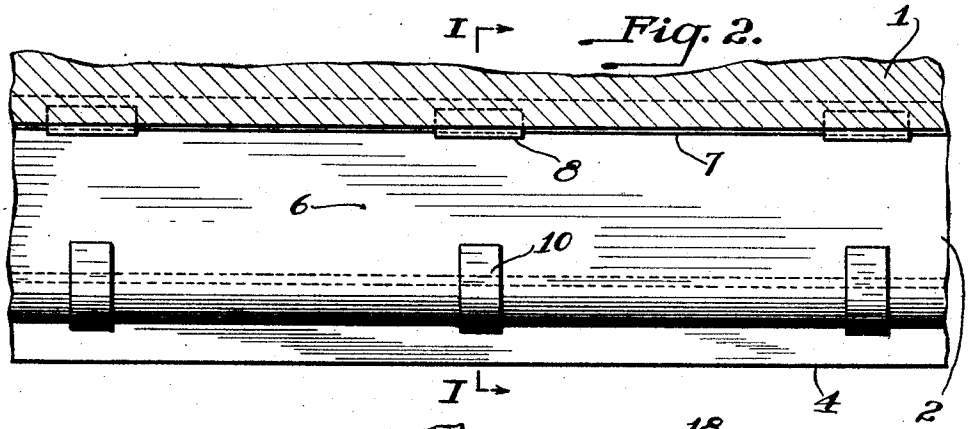
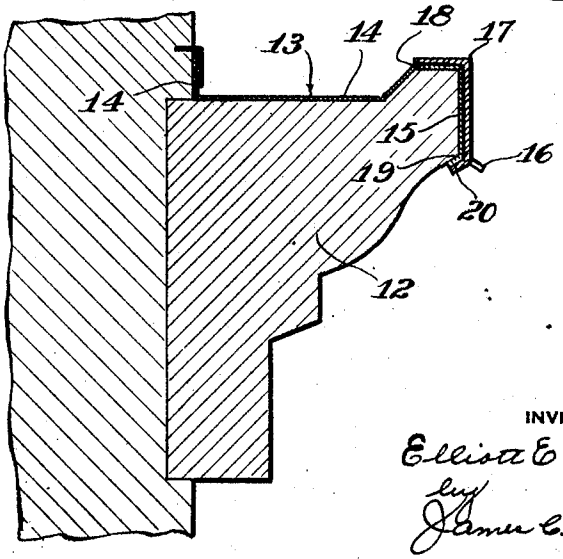


Fig. 3.



INVENTOR

Elliott E. Perritt

by James C. Bradley

atty.

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UNITED STATES PATENT OFFICE.

ELLIOTT E. PERRITT, OF PITTSBURGH, PENNSYLVANIA.

SHEET-METAL ROOF CONSTRUCTION.

Application filed March 11, 1926. Serial No. 93,822

The invention relates to sheet metal roof constructions and particularly to constructions, such as belt courses, cornices, or the like, where it is necessary to carry the metal sheathing, which protects the terra cotta, stone, wood, or other material constituting the body of the belt course or cornice, around the edge of the material and anchor it securely in position. Heretofore, this has been done by the use of wedges or by providing grooves in the material with inserts therein, such as lead, to hold the edge of the sheathing in place. Such arrangements are all more or less unsatisfactory. The wedges are liable to become loosened in the course of time, and further impose a strain upon the terra cotta or other body, material, tending to crack it, while the expedient of providing holding grooves with lead and cement involves a large amount of labor and expense, incident to the forming of the grooves and the provision of the anchoring devices therein. These expedients all have the further objection that they positively hold the sheathing, so that it is not free to expand and contract under varying temperature conditions. Due to this condition, the holding devices are often loosened and fail to perform their holding function, or the sheathing is subjected to a strain causing it to rupture.

The object of the present invention is to overcome the objections above stated and provide a much cheaper means for holding the edge of the sheathing, which will hold securely throughout the life of the sheathing and which permits the sheathing to expand and contract freely without imposing upon it any substantial strain. One embodiment of the invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a section on the line I—I of Fig. 2, showing the construction as applied to a belt course. Fig. 2 is a section on the line II—II of Fig. 1. And Fig. 3 is a section through a modification.

Referring to the drawings, 1 is a vertical wall member carrying a series of horizontal members 2, forming a part of a belt course. The members 2 may be of terra cotta, stone, wood, concrete or any other building material suitable for forming a belt course, or similar member whose upper surface it is desirable to protect by means of sheet metal sheathing.

The vertical face of the members 2, constituting the belt course, may have their outer faces formed in various ornamental configurations, the one shown including the ribs 3 and 4 with the interposed groove 5.

The sheathing 6 may be of galvanized iron, copper, or any other suitable sheet metal, and has its inner edge turned up to form the flange 7, which is secured to the wall 1, by the usual flashing 8. The outer edge of the sheathing is bent around the rib 3 and into the groove 5, as shown at 9.

In order to hold the bent edge 9 securely in position, the strips or ribs 10, 10, 10, etc. are employed, such ribs being spaced at suitable intervals along the sheathing, and being secured to the surface of the sheathing at their inner ends by means of the solder 11, although any other equivalent or suitable means might be employed for securing the strips to the sheathing. The strips may be of brass or galvanized iron or any other suitable material of such stiffness and strength as to insure the holding of the edge of the sheathing in its bent position embracing the rib 3. The strips or ribs are preferably attached to the sheathing before it is applied to the belt course, but they may be applied, after the sheathing is in position, the latter method being required in cases where the strips or ribs are applied to existing structures, in which the edge holding means for the sheathing already in service, have been found insufficient.

The strips may be applied to the sheathing at low cost, both as to material and labor, and obviate any requirement for other anchoring means for the bent edge of the sheathing. As there is no positive attachment of the bent edge 9 to the ribs 3, the sheathing is free to expand and contract, so that no strain is thrown upon the metal, such as is the case where the bent edge of the sheathing is positively wedged or anchored to the members 2, as has been the practice heretofore. The advantages of the construction will be readily apparent to those skilled in the art, who have experienced the difficulties incident to the methods heretofore employed for holding the outer edges of sheathing in similar relations, and it may also be understood by those skilled in the art that the invention is capable of embodiment in a wide variety of forms depending on the contour of the mem-

bers 2, whose surfaces require protection and to which the sheathing must be fitted or adapted.

Fig. 3 illustrates a modification involving a gutter construction, with the invention applied thereto. Here the member 12 is depressed to form the gutter 13, and is covered with the sheathing 14. The vertical flange 15 of this sheathing is turned out at its lower edge to provide the lip 16 to guide water which flows down the flange 15 outward and avoid streaking the face of the cornice. The strips 17 correspond to the strips 10 of Figs. 1 and 2, and are similarly spaced. They are soldered to the sheathing at 18, and are turned around the corner 19, as indicated at 20, the edge of the sheathing beneath the bend 20 being correspondingly bent slightly around the corner 19, as illustrated. The continuity of the lip 16 is thus broken at the points where the strips 17 are used. The use of the flange 20 may be dispensed with, if desired, in which case the continuity of the lip 16 is not interrupted, but the flange 20 adds a very considerable degree of security to the construction, and is desirable for this reason.

What I claim is:

1. The combination with a horizontal wall member having a longitudinal rib extending along its outer edge, of a protecting sheathing of sheet metal covering such wall member and bent around said rib, and strips of relatively stiff metal spaced at intervals along the upper face of the sheathing with their outer ends bent over and supporting the bent edge of the sheathing, and means securing the portions of the strips lying above the sheathing thereto.

2. The combination with a horizontal wall member having a longitudinal rib extending along its outer edge, of a protecting sheathing of sheet metal covering such wall member and bent around said rib, and strips of relatively stiff metal spaced at intervals along the upper face of the sheathing with their outer ends bent over and supporting the bent edge of the sheathing, and means for securely attaching the inner ends of the strips to the sheathing.

3. The combination with a horizontal wall member having a longitudinal rib extending along its outer edge, of a protecting sheathing of sheet metal covering such wall member and bent around said rib, and strips of relatively stiff metal spaced at intervals along the upper face of the sheathing with their outer ends bent over and supporting the bent edge of the sheathing, and means for securely attaching the inner ends of the strips to the upper surface of the sheathing.

4. The combination with a horizontal belt course member having a longitudinally extending groove in its vertical face adjacent the upper face of the member, of a protecting sheathing lying over the upper face of the member and curved around the corner thereof into said groove, and ribs of relatively stiff material spaced at intervals along the sheathing and lying transversely thereof with their outer ends following the contour of the sheathing into said groove so as to support the bent edge of the sheathing and means securely attaching to the sheathing the portions of the strips lying above the sheathing.

5. The combination with a horizontal wall member having a longitudinal rib extending along its outer edge, of a protecting sheathing of sheet metal covering such wall member and bent around said rib, and strips of relatively stiff metal spaced at intervals along the upper face of the sheathing with their outer ends bent over and supporting the bent edge of the sheathing, and means for securely attaching the inner ends of the strips to the sheathing and leaving the bent outer ends free.

6. The combination with a projecting course member having an upper horizontal surface and a downwardly extending surface at the edge thereof, of a sheathing of sheet metal lying over said horizontal surface and provided with a flange lying over said downwardly extending surface, and ribs of relatively stiff metal spaced at intervals along the upper face of the sheathing, and lying transversely thereof with their outer ends bent downwardly and supporting said flange, and means for attaching the portions of the strips lying above the sheathing thereto.

In testimony whereof, I have hereunto subscribed my name this 9th day of March, 1926.

ELLIOTT E. PERRITT.