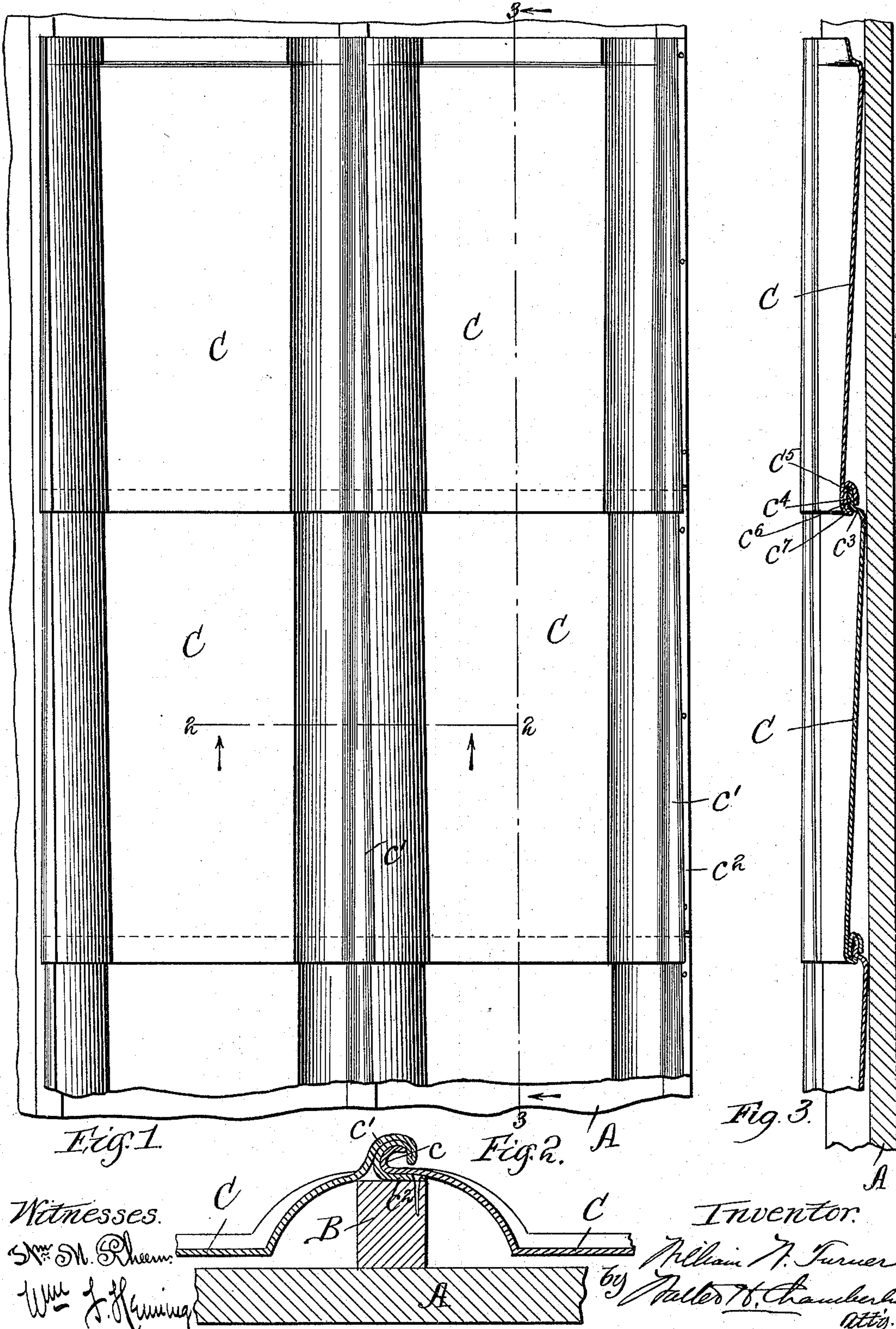


(No Model.)

W. W. TURNER.
ROOF.

No. 571,416.

Patented Nov. 17, 1896.



Witnesses.

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Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM W. TURNER, OF CHICAGO, ILLINOIS.

ROOF.

SPECIFICATION forming part of Letters Patent No. 571,416, dated November 17, 1896.

Application filed February 23, 1895. Serial No. 539,347. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. TURNER, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have
5 invented a certain new and useful Improvement in Roofs, (Case A;) and I declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a metallic roof of that class in which
15 a series of sheets are engaged together to form a metal covering for the roof.

The invention consists in a combination of devices and appliances hereinafter described and claimed.

20 In the drawings, Figure 1 is a plan view of my-roof. Fig. 2 is a section on the line 2 2 of Fig. 1, and Fig. 3 is a section on the line 3 3 of Fig. 1.

In carrying out the invention A represents
25 the body of the roof, and B suitable strips extending up and down or longitudinally of the roof.

C represents the metal plates, which are engaged together to form the roof-covering. As
30 will be seen by reference to Fig. 2, the longitudinal edges of each sheet are curved upward and outward, so that when engaged to the next adjacent sheet a semicircular ridge will be formed, one of the longitudinal strips
35 B extending under this semicircular ridge. At the extreme edge of the sheet the metal on one side or edge is curved to form a curved flange c , while on the other edge the metal is bent upon itself or beaded, as at c' , and then
40 extended outwardly in a horizontal direction, as at c^2 . The upper end of each sheet is bent upward, as at c^3 , and then outward, as at c^4 , and the extreme edge tilted upward slightly, as at c^5 . The other or lower end is doubled
45 back upon itself and thrown outward slightly, as at c^6 , while the finished edge is turned down slightly, as at c^7 .

In laying the roof a sheet is laid down with each of the longitudinal edges resting upon
50 one of the strips B and the sheet engaged to the strip by nailing or otherwise through the horizontal flange c^2 . The next sheet above

is slipped down until the flange c^4 engages in the recess in the lower end of the sheet above formed by the flange c^6 , and the edge c^5 rests
55 on the under surface of the sheet above, and so on until the first vertical row or strip is completed. The operator then takes another sheet and tilts it up until the flange or bead c engages under the flange or bead c^3 on the
60 next adjacent sheet. He then throws it down to a horizontal position, and the two sheets are engaged together by the flange c fitting underneath the flange c^3 of the adjacent sheet. The horizontal portion c^2 of this sheet just
65 laid is then engaged to the strip, and so on until the roof is completed. It is of course obvious that other methods might be employed in laying the roof; but by laying it in
70 the manner described the operator need at no time rest himself upon the completed work, but can always rest himself to the right of it. It will be observed that the edge of the flange c passes beyond the center of the arch formed
75 by the flange c^3 , thus forcing the plate on which the flange c is located tightly against the other plate and preventing absolutely any water from working through. Again, by turning up the edge c^5 it will come to a bearing on the plate and prevent any water from
80 working past this edge, while at the same time it forces the flange c^4 tightly against the edge c^6 .

What I claim is—

1. In a roof, the combination with the body
85 thereof, of a series of plates, each having on one edge a flange formed by doubling the metal on itself and a nail-strip projecting beyond, the engaging edge of the adjacent
90 plate having a turned-up edge to engage under said flange, both said flange and turned-up edge being of circular shape in cross-section and concentric with each other, whereby
95 the circular turned-up edge may be coiled within the circular flange and thus establish an extended bearing or contact between the plates, substantially as described.

2. In a roof, the combination with the body
100 thereof, of a series of plates, each having on one edge a flange formed by doubling the metal on itself and a nail-strip projecting beyond, the engaging edge of the adjacent
plate having a turned-up edge to engage under said flange, both said flange and turned-

up edge being of circular shape in cross-section and concentric with each other, whereby the circular turned-up edge may be coiled within the circular flange and thus establish
5 an extended bearing or contact between the plates, and a wooden strip resting on the body of the roof and located immediately below the engaging seam between the two
10 plates, said flat portion of the plate resting on the body of the roof, substantially as described.

3. A sheet-metal section for a roof having one end turned up, as at c^3 and outward, as at c^4 , while the other end is doubled downward on itself, provided with a flange c^6 and
15 turned down slightly as at c^7 , substantially as described.

4. A sheet-metal section for a roof having one end turned upward as at c^3 , outward as
20 at c^4 , and upward as at c^5 , while the other end is doubled upon itself and provided with a flange c^6 and the edge turned downward as at c^7 , substantially as described.

5. A metal sheet for a roof having one end
25 turned upward as at c^3 , outward as at c^4 and

upward as at c^5 , the other end doubled upon itself and having the flange c^6 and turned downward as at c^7 , one longitudinal edge provided with a curved flange c while the other
30 edge is provided with the curved flange c' and horizontal portion c^2 , substantially as described.

6. The combination in a roof of two sheets or sections engaged together by an interlocking seam, one sheet provided with a curved
35 flange c' and horizontal portion c^2 , while the other sheet is provided with a curved flange c of substantially the same curvature as the flange c' which when engaged to the adjacent sheet projects beyond the center of the arch
40 formed by the flange c' and thus holds the inner faces of the flanges c c' together, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM W. TURNER.

Witnesses:

W. H. CHAMBERLIN,
FLORENCE KING.