

J. L. FAULHABER.
SHEET METAL ROOFING.
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1,039,267.

Patented Sept. 24, 1912.

Fig. 1.

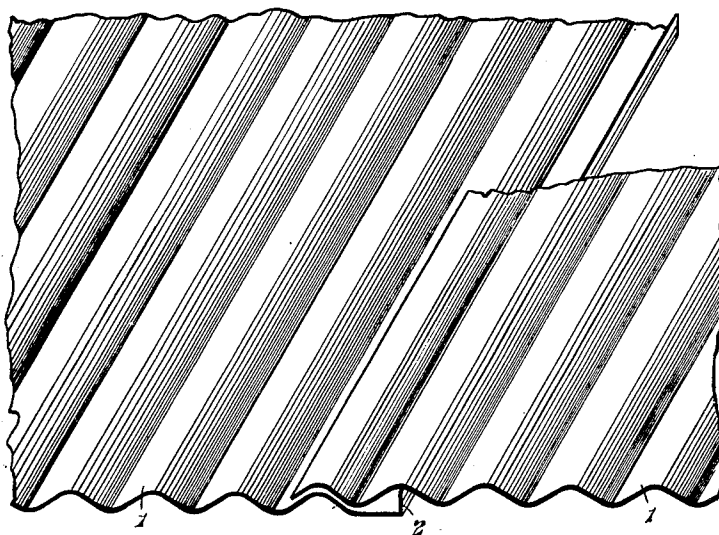


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN L. FAULHABER, OF ELWOOD, INDIANA, ASSIGNOR TO THE ELLER MANUFACTURING COMPANY, OF CANTON, OHIO, A CORPORATION OF OHIO.

SHEET-METAL ROOFING.

1,039,267.

Specification of Letters Patent.

Patented Sept. 24, 1912.

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To all whom it may concern:

Be it known that I, JOHN L. FAULHABER, a citizen of the United States, residing at Elwood, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Sheet-Metal Roofing, of which the following is a specification.

My invention relates to improvements in sheet metal roofing, in which corrugated sheets of metal are employed, which sheets are formed of any desired length and the seams or joints produced by lapping portions of the sheets upon each other and in providing a flange upon one edge of each sheet.

The object of the invention is to drain the water which may be taken up by capillary attraction at the joints of the sheets constituting or going to make up the roof. This object together with other objects readily apparent to those skilled in the art, I attain by the construction illustrated in the accompanying drawing, although my invention may be embodied in a variety of other mechanical forms, the construction illustrated being chosen by way of example.

In the accompanying drawing—Figure 1 is a perspective view showing portions of two sheets of roofing showing said sheets in proper relative position with reference to each other. Fig. 2 is a transverse or horizontal section showing two sheets properly lapped one upon the other, except that the lapped portions of the sheet are shown slightly spaced from each other.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the roofing sheets which are corrugated longitudinally, the corrugations being formed of practically the same size and shape in each sheet so that one or more corrugations of the upper sheet may rest upon one or more corrugations of the lower sheet by which arrangement and location joints are produced, which joints are ordinary lapped joints. It will be understood that the corrugations of the sheets are to be parallel with the pitch of the roof, that is to say the corrugations are to extend lengthwise from the eaves of the roof toward the

comb or upper part of the roof. The sheets are secured to the roof boards or other supports for the sheets in the usual manner preferably by nails, the nails being driven through the sheets at the apexes of the corrugations. It is well understood that dampness, resulting from fog, dew and the like gathers upon the upper surface of metallic roofing so as to produce water in appreciable quantities. This water, as well as rain water is conveyed by capillary attraction between the lapped or joined portions of the sheet metal going to make up the roof proper, such water being thus conveyed to the sheeting of the roof, thus causing the roof to leak. Fine snow and ice also frequently finds its way between the overlapped portions of the sheets producing similar trouble.

For the purpose of properly draining all water that may find its way between the lapped portions or through the seams of the roofing I provide one edge of each sheet with the flange 2, which flange extends upward at substantially right angles to the horizontal plane of the roofing sheet and of such a height that the flange can be located under one of the corrugations, that is to say under the concaved face of one of the corrugations, said corrugation by reason of its upward curvature provides sufficient room for the flange 2 to lie under the sheet which is lapped upon or over an adjacent sheet. The flange 2 is for the purpose of checking the flow of water which finds its way through the lapped portion or a seam of adjacent sheets and conveying the water to the eaves of the roof.

It will be understood that the flange will produce what might be termed a channel or trough of sufficient size to properly conduct all the water and dampness carried by capillary attraction under the upper lapped portion of the sheets.

The flange or its equivalent formed upon the lateral edge of each of the roofing sheets provides a drainage groove of simple construction without materially increasing the expense of the manufacture of the sheets and at the same time adding little if any additional labor in placing the sheets upon the roof.

While I have shown and described the sheets going to make up the roof as provided

with rounded corrugations it should be understood that I do not desire to be limited to such exact construction. Angular or other corrugations may be substituted for
5 such rounded corrugations, the essential feature of my invention being that the overlapped lateral edges of the sheets along one definite line are sufficiently spaced from
10 each other to destroy capillary attraction and produce a drainage groove adapted to carry the water from between the overlapped portions down to the bottom edge of the roof without permitting it to be deposited upon the sheathing beneath the metallic
15 plates.

A portion of the underlapped sheet adjacent the flange 2 is formed flat, which flat portion is located adjacent the flange 2 and is so formed for the purpose of properly
20 supporting the underlapped portion at the joint and in such a manner that it will not be sprung or bent.

By reason of the fact that the body of each sheet is provided with a series of longitudinal corrugations extending to the side
25 edge opposite the flange 2, the said sheets may be longitudinally cut when desired along any of the corrugations in the body of the sheet, and when so cut said cut edge of
30 the sheet will overlie the flange 2, as shown in the drawings and herein above described, it being thus possible to arrange the roofing to cover a roof of any size whether same is of such a length as to be covered by a plurality of standard sheets or not. In this
35 way it will be found very convenient to apply the roofing herein described in cases where other roofing could not be used so advantageously.

40 Having fully described my invention what

I claim as new and desire to secure by Letters Patent, is—

1. In roofing of the character described a substantially rectangular sheet of metal provided at one side edge with an integral
45 upturned flange standing substantially at right-angles to the plane of the sheet, a plain portion adjacent said upturned flange, and corrugations in the body of said sheet extending parallel to said flange and arranged in series from said plain portion to
50 the opposite side edge of the sheet.

2. Sheet metal roofing consisting of a plurality of substantially rectangular sheets of metal with over-lapping edges, each sheet
55 provided in its body portion with longitudinal corrugations arranged parallel to each other and to the side edges of the sheet, said corrugations extending in transverse series to one of said side edges, the other side edge
60 of the sheet being plain and having a portion turned into vertical position with reference to the general plane of the sheet, and a plain portion arranged intermediate said vertically disposed portion and said corrugations, and the corrugated edge of one
65 sheet over-lapping the plain edge of the other sheet, said plain intermediate portion and said vertical portion of one sheet with the over-lapping corrugated edge of the
70 other sheet forming an air space adapted to interrupt capillary attraction.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JOHN L. FAULHABER.

Witnesses:

ROBERT F. OHRNING,
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