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J. POMMERSHEIM

SHINGLE CONSTRUCTION

Filed Dec. 20, 1923

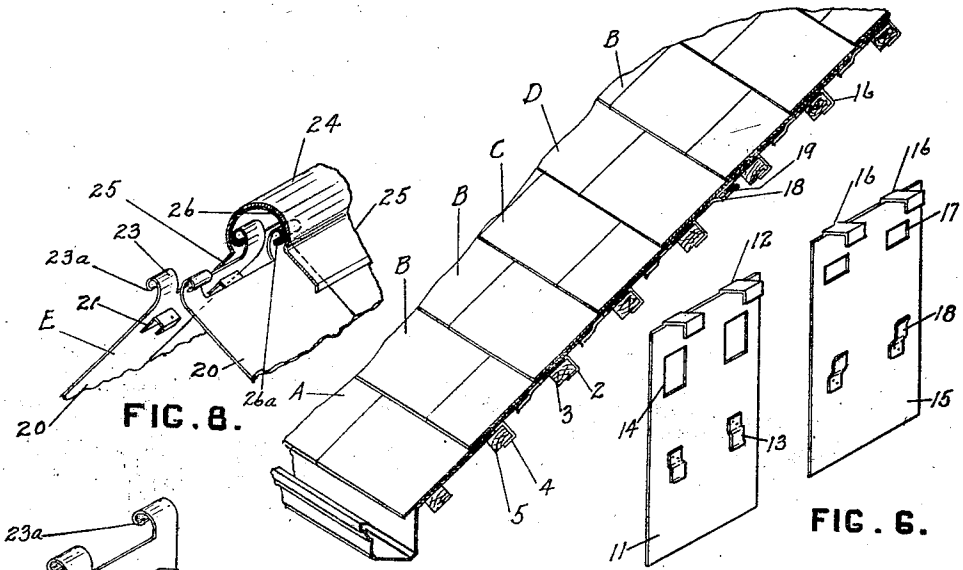


FIG. 8.

FIG. 1.

FIG. 5.

FIG. 6.

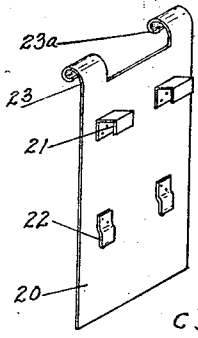


FIG. 7.

FIG. 2.

FIG. 3.

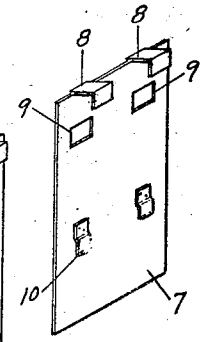


FIG. 4.

INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN POMMERSHEIM, OF EAST PITTSBURGH, PENNSYLVANIA.

SHINGLE CONSTRUCTION.

Application filed December 20, 1923. Serial No. 681,783.

To all whom it may concern:

Be it known that I, JOHN POMMERSHEIM, a citizen of the United States, residing at East Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Shingle Constructions, of which the following is a specification.

This invention relates to a metallic shingle construction for roofing.

One object of the invention is to provide metallic shingles which may be enameled, galvanized, or otherwise suitably coated to protect the same from corrosion.

Another object of the invention is to provide a metallic shingle construction in which the shingles interlock in such manner as to lie flat upon each other, thus avoiding spaces between the layers or rows of shingles.

A further object of the invention is to provide a shingle construction in which certain of the shingles may be readily displaced from their position as laid, by having access to the same from beneath; thus providing a structure in which certain shingles or rows of shingles may be removed for replacement without the removal of a large portion of the roofing.

In the accompanying drawings Figure 1 is an isometric sectional view through the shingle construction as laid in a roof; Figure 2 is an isometric view taken from the rear, and showing the arrangement of the shingles assembled in a structure for roofing; Figure 3 is an isometric rear view of a shingle typifying those used in the first row at the lower edge of a roof; Figure 4 is a similar view showing a shingle typify those laid in the second row of the roofing structure; Figure 5 is a similar view of a shingle typifying those laid in the third row of a roofing structure; Figure 6 is a similar view of a shingle typifying those laid in the fourth row of a roofing structure; Figure 7 is a similar view of a shingle typifying those laid in the topmost row of a roofing structure at the peak or ridge of the roof; and Figure 8 is a fragmentary isometric view, partly in section, showing the shingle arrangement at the peak or ridge of a roof.

In the drawings Figure 1 designates a shingle of the form shown in Figure 3 of the drawings, and used to constitute the row A of Figures 1 and 2. This shingle is provided at the rear thereof with a pair of downwardly extending hooks 2 riveted, or otherwise suitably secured to the shingle, for the purpose of engaging the roofing lath 3 as shown in Figure 1 of the drawings. As shown, the hooks 2 are disposed adjacent the upper extremity of the shingle, and further down its rearward surface the shingle is provided with a single downwardly extending hook 4 for engaging the roofing lath 5 of the roof. The shingle is also provided with a pair of relatively narrow apertures 6, which are disposed adjacent the upper extremity of the shingle, and are shown immediately beneath the hooks 2 for engaging the roofing lath.

The shingles 7, as shown in Figure 4 of the drawings and which constitute the second row B of shingles in Figures 1 and 2 of the drawings, are provided on their rearward surface, adjacent their upper extremities with a pair of downwardly extending hooks 8 for engaging a roofing lath, and with orifices 9 similar to the orifices 6 in the shingles 1. These shingles 7 are also provided part way of their length with a pair of downwardly extending spring clips 10 riveted or otherwise secured to the rearward face of the shingle. These spring clips pass through the orifices 6 in the shingles 1, and engage the rearward face of the shingles 1 to form the row B interlocking with the row A of the roofing structure.

The shingles 11, shown in Figure 5 of the drawings and constituting the row of shingles C in the roofing structure shown in Figures 1 and 2 of the drawings, are generally similar to the shingles 7, which constitute the row B of the roofing structure. These shingles are accordingly provided with downwardly extending hooks 12 for engaging the roofing lath, which are generally similar to the hooks on the shingles 1 and 7. They are also provided with downwardly extending spring clips 13 secured to their rearward faces and similar to the spring clips 10 on a shingle 7. The orifices 14 in these shingles are, however, made considerably wider vertically of the shingle than the orifices in the shingles 1 and 7.

The shingles 15, as shown in Figure 6 of the drawings and constituting the row of shingles D in the roofing structure shown in Figures 1 and 2 of the drawings, are also provided with downwardly extending hooks 16 for engaging a lath, and are provided with relatively narrow orifices 17 similar to those of the shingles 1 and 7. The spring

clips 18, however, which are secured to the rearward surface of these shingles, are directed upwardly for engagement in the relatively wide orifices 14 of the shingles 11. As shown in Figures 2 and 6 of the drawings, these shingles are held securely in place by means of strips 19 of resilient metal which may be forced in between the spring clips 18 and the rearward face of the shingle 11 to lock this portion of the structure securely in place.

The shingles 20, as shown in Figure 7 of the drawings and constituting the uppermost row E of shingles, are similar to the shingles 7 constituting the second row B of the structure in so far as the lath engaging hooks 21 and shingle engaging clips 22 of these shingles are concerned. These shingles 20, however, constituting the topmost row do not require any orifices for the engagement of the spring clips of the next uppermost row of shingles. Instead these shingles have on their upper extremity upwardly extending lugs 23 which are curved over beyond the forward face of the shingle to provide beads 23^a. The crown or ridge of the roof is in the form of an open tubular portion 24, which extends along the roof, and which has integral therewith skirts 25 extending on either side to overlap the shingles of the uppermost row E. Interiorly of tubular portion 24 is a plate 26 welded or otherwise suitably secured thereto and having inwardly curved portions 26^a arranged to engage the beads 23^a on the shingles 20.

In building up a roof from each edge thereof the lowermost row A composed of the shingles 1 is first laid. The second row B, composed of the shingles 7 is then laid upon the row A to overlap all the points between the shingles of the first row. For this purpose each of these shingles 7 is laid with one of its spring clips 10 in the orifice 6 of one of the shingles of the first row and the other spring clip and orifice of the next adjacent shingle of the first row.

The third row C is similarly laid on the second row B.

In forming the fourth row D the spring clips 18 with the shingles 15 are inserted in the orifices 14 of the shingles 11 to extend upwardly along the rearward faces of such shingles. The strips 19 of resilient metal are then inserted from beneath, each strip engaging behind one of the spring clips 18 of the shingle 15, and also engaging one of the spring clips of an adjacent shingle in this row D.

If it is desired to remove shingles from the lowermost four rows, the strips 19 are forced out from engagement with the spring clips 18, and the shingles 15, forming the row D, are forced upwardly and outwardly beneath the row of shingles overlying them to disengage their hooks 16 from the roofing lath which they embrace. With the row D removed, the other underlying rows of the structure may also be readily removed by simply disengaging the same.

It should be understood that the unit of a single structure need not necessarily be so arranged that the removable shingles occur in every fourth row, as they may obviously be used to form the second, third, fifth, or any other row of the structure, according to the size of the lath and the general character of the work.

It should be observed, as will be seen particularly from Figure 1 of the drawings, that the shingles of each row of the roofing structure lie flat upon those of the underlying row. There are therefore no air spaces between the shingles to collect moisture and to cause corrosion of the metal of the shingles. This also insures a more positively weather proof structure than where spaces exist between rows of shingles.

As the structure of the present invention is susceptible of numerous modifications in the form and arrangement of the parts, as well as the combinations in which various types of shingles comprising the structure are employed, the scope of the invention is to be restricted only by the limitations contained in the claims appended hereto.

What I claim is:

1. A metallic shingle having lath engaging hooks on the rear face thereof and provided with apertures for the reception of engaging means on another shingle, and resilient clips on the rear face of the shingle arranged to pass through apertures in a similar shingle and bear against the rear face thereof.

2. A shingle construction comprising a plurality of rows of shingles having lath engaging hooks on the rear faces thereof and provided with apertures for the reception of engaging means on the shingles of the next higher row, and resilient clips on the rear faces of said shingles arranged to pass through apertures in shingles of the next lower row, the clips of at least one row being directed upwardly of the structure and the clips of the other rows being directed downwardly thereof.

3. A shingle construction comprising a plurality of row of shingles having lath engaging hooks on the rear faces thereof and provided with apertures for the reception of engaging means on the shingles of the next higher row, and resilient clips on the rear faces of said shingles arranged to pass through apertures in shingles of the next lower row; the clips of at least one row being directed upwardly of the structure and the clips of the other rows being directed downwardly thereof, and the apertures in the row through which the up-

wardly directed clips pass being of greater vertical extent than the apertures in the shingles of the other rows.

4. A shingle construction comprising a plurality of rows of shingles having lath engaging hooks on the rear faces thereof and provided with apertures for the reception of engaging means on the shingles of the next higher row, resilient clips on the rear faces of said shingles arranged to pass through apertures in the shingles of the next lower row; the clips of at least one row being directed upwardly of the structure and the clips of the other rows being directed downwardly thereof, and the apertures through which the upwardly directed shingles pass being of greater vertical extent than the apertures in the shingles of the other rows; and bars arranged to connect the upwardly extending clips on adjacent shingles in the same row.

5. A shingle construction comprising a plurality of rows of shingles having lath engaging hooks on the rear faces thereof and provided with apertures for the reception of engaging means on the shingles of the next higher row, resilient clips on the rear faces of said shingles arranged to pass through apertures in shingles of the next lower row, the clips of at least one row being directed upwardly of the structure and the clips of the other rows being directed downwardly thereof, and bars arranged to connect the upwardly extending clips on adjacent shingles in the same row.

6. A metallic shingle having lath engaging hooks on the rear face thereof and provided with apertures for the reception of engaging means of another shingle, and upwardly directed resilient clips on the rear face of the shingle arranged to pass through the apertures in another shingle and bear against the rear face thereof.

In witness whereof, I hereunto set my hand.

JOHN POMMERSHEIM.

Witnesses:
A. M. CHEVERINI,
E. B. WALTERS.