Sept. 27, 1927. 1,643,445

B. G. CALL

METALLIC SHINGLE

Filed Sept. 30, 1925

Fig. 1

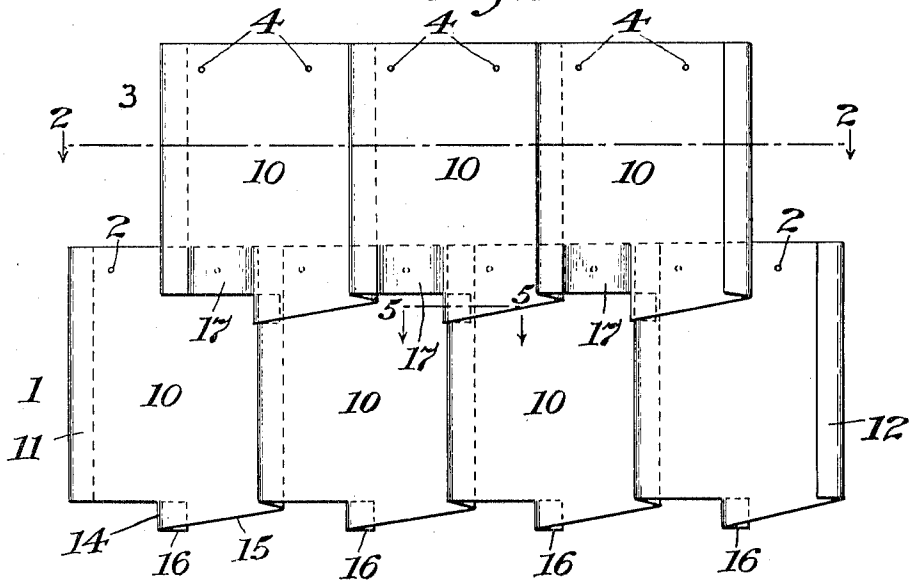


Fig. 2

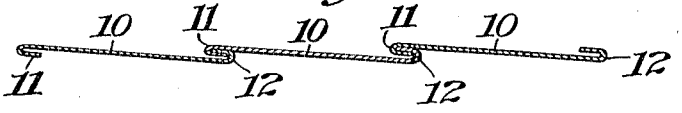


Fig. 3

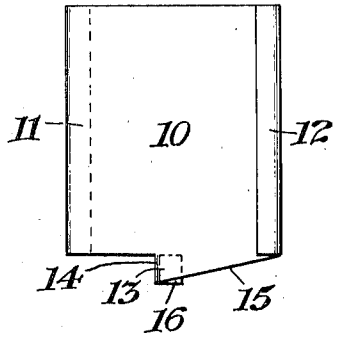


Fig. 4

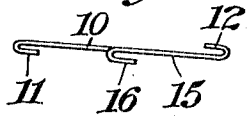
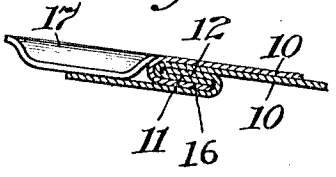


Fig. 5



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UNITED STATES PATENT OFFICE.

BENJAMIN GEORGE CALL, OF TACOMA, WASHINGTON, ASSIGNOR TO AMERICAN SMELTING AND REFINING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

METALLIC SHINGLE.

Application filed September 30, 1925. Serial No. 59,492.

The invention relates to shingles for roofs and other surfaces it is desired to make weather-proof and more particularly relates to shingles made of flexible and water-proof sheet material such as copper.

According to the invention each shingle is made with one longitudinal side edge bent under and the other longitudinal side edge bent over to form folds, the adjoining shingles of a row having their folds hooked together to form interlocking joints. Furthermore, each shingle may be provided at its lower transverse edge, preferably near the middle thereof, with a portion bent under to form a fold which can be interlocked within an interlocked joint of the next lower row to secure an upper row to a lower row. In addition the invention provides that, after the shingles are placed in assembled relation on a supporting surface, the lower part of each shingle between its longitudinal underturned fold and its underturned portion on the lower transverse edge may be pressed downwardly to lock the joints and thereby more securely hold the shingles in position.

Various other objects and advantages of the invention will be obvious from the following particular description of one form of device embodying my invention or from an inspection of the accompanying drawings; and the invention also consists in certain new and novel features of construction and combinations of parts hereinafter set forth and claimed.

In the accompanying drawings I have shown for purpose of illustration one form of structure embodying the invention, in which

Fig. 1 is a plan view showing in assembled relation two adjoining rows of shingles made according to the invention.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a plan view of a single shingle.

Fig. 4 is an end view of the lower transverse side of a single shingle, and

Fig. 5 is a section on the line 5—5 of Fig. 1 showing how the shingles of an upper row are secured to the next lower row and showing how part of the lower portion of each shingle is depressed to securely lock the joints between shingles.

In the following description and in the claims parts will be identified by specific names for convenience, but they are intended to be as generic in their application to similar parts as the art will permit.

Referring to the drawing, each shngle is generally rectangular in shape. It comprises a body portion 10 having one longitudinal edge bent under to form a fold 11 and the opposite longitudinal edge bent over to form a fold 12. At the lower transverse edge a projection 13 is provided having a longitudinal edge 14 at substantially the middle of the lower side of the body and an oblique edge 15 extending from the said longitudinal edge 14 to the overturned fold 12. The projection 13 has a portion cut away from the body 10 and bent under to form an underturned fold 16 for a purpose hereinafter described.

To assemble the shingles on a supporting surface a lower row 1 may be first placed in position, the shingles being hooked together by means of the complementary folds or hooking portion 11 and 12 and nailed by means of nails 2 or otherwise secured to the supporting surface at the upper parts of the bodies thereof. The next row 3 above may then be placed in position. Each shingle starting at one side of the row may be overlapped the desired distance over the lower row 1 with the lower attaching fold or hooking portion 16 interleaved in a joint between the shingles in the lower row 1. The next shingle of the upper row 2 may be hooked to the first shingle by means of the complementary folds, the attaching fold 16 on the bottom of it being interleaved within the next joint of the lower row 1. The shingles may be nailed by nails 4 or otherwise secured to the supporting surface at the upper portions thereof.

It will be seen that the shingles will be held with their attaching folds or hooking portions in hooked engagement by the nails 2 and 4. However, in order to more securely lock the shingles in assembled relation, after the shingles are assembled, the

lower part 17 of each shingle between its longitudinal underturned fold 11 and the underturned attaching fold 16 on the lower transverse edge may be pressed down to further lock the joints between shingles. This expedient provides a further security against the shingles becoming loose or becoming separated from each other by disengagement of the joints.

The hooking portions 11 and 16 both open in the same direction while the hooking portion 12 opens in a direction opposite to that of the hooking portions 11 and 16. This construction insures an easy assembly of shingles on the supporting surface at the same time providing an efficient interlocking engagement between shingles making good weather-proof joints.

It will be understood that the entire roof or other surface may be covered with shingles proceeding in this manner. Any desired overlap between rows may be provided. It will also be seen that the shingles are simple in design, cheap to manufacture, rugged and durable, and that each shingle is identical in construction with the others. The joints between adjacent shingles in the same row are not liable to leak because of the overturned folds acting as walls to prevent the water from flowing between the shingles. Furthermore, it is impossible for the wind or elements to tear loose an upper row from a lower row because of the lower attaching folds on the shingles hooked within the joints of the lower row.

While I have shown and described and have pointed out in the annexed claims certain novel features of my invention, it will be understood that various omissions, substitutions and changes in the forms and details of the device illustrated and in its operation may be made by those skilled in the art without departing from the spirit of my invention.

I claim—

1. A shingle comprising a body, a first hooking portion on one edge above said body, a second hooking portion on an opposite edge beneath said body, a third hooking portion on an edge joining said opposite edges beneath said body, said first hooking portion opening in a direction opposite to said second and third hooking portions.

2. A shingle comprising a body, a first hooking portion on one edge above said body, a second hooking portion on an opposite edge beneath said body, a third hooking portion on an edge joining said opposite edges beneath said body, said second and third hooking portions opening in the same direction.

3. A shingle comprising a body of sheet material having at one edge a portion bent under to form an underturned fold and at another edge a portion bent over to form an overturned fold, said folds being adapted to form hooked joints with complementary folds on like shingles, an edge of said body being provided with a second underturned fold adapted to be hooked into a hooked joint of a lower row of like shingles.

4. A shingle comprising a body of sheet material having at one longitudinal edge a portion bent under to form a laterally extending underturned fold and at its opposite edge a portion bent over to form a laterally extending overturned fold, said folds extending substantially the entire length of the body and adapted to form hooked joints with complementary folds on like shingles, the lower transverse edge of said body being provided with a projection having a longitudinal edge between the longitudinal edges of said body, said projection having a portion at its longitudinal edge bent under to form a second laterally extending underturned fold adapted to be hooked into a hooked joint of a lower row of like shingles.

5. A shingle comprising a substantially rectangular body of sheet material having at one longitudinal edge a portion bent under to form an underturned fold at its opposite edge a portion bent over to form an overturned fold, said folds extending substantially the entire length of the body and adapted to have hooking engagement with complementary folds on like shingles, the lower transverse edge of said body being provided with an integral projection having a longitudinal edge near the middle of said lower side and an oblique edge extending from the longitudinal edge of said projection to said overturned fold, said projection having a portion cut away from said body and bent around its longitudinal edge to form a second underturned fold adapted to be hooked into a hooked joint of a lower row of like shingles.

6. A shingle construction adapted to be positioned upon a supporting surface, a row of shingles each comprising a body having hooking portions on opposite edges to form joints with adjoining shingles, each shingle having a portion of its body distorted adjacent said joints and in contact therewith to lock one of said joints.

7. A shingle construction adapted to be positioned upon a supporting surface, a row of shingles each comprising a body, a first hooking portion on one edge above said body, a second hooking portion on an opposite edge beneath said body, each shingle having its hooking portions engaged with complementary hooking portions on adjoining shingles to form joints, each shingle having a portion of its body pressed downwardly adjacent said joints and in contact therewith.

8. A shingle construction adapted to be

positioned upon a supporting surface, a lower row of shingles each comprising a body having a first hooking portion on one edge, a second hooking portion on the opposite edge to form joints with adjoining shingles, and a third hooking portion on another edge, an upper like row of shingles, the third hooking portions of the upper row being in interlocking engagement with the joints in the lower row, each shingle in the upper row having a portion depressed between its first hooking portion and its third hooking portion to lock the joints in both rows.

In testimony whereof I have hereunto set my hand and seal.

BENJAMIN GEORGE CALL.