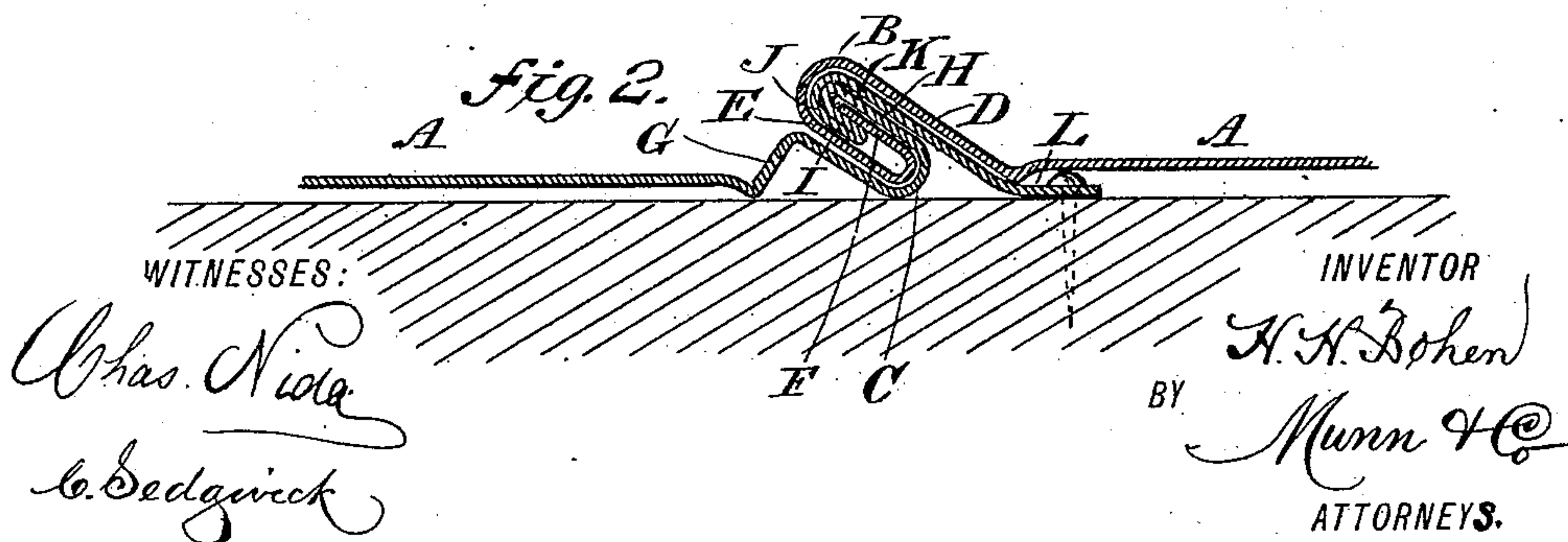
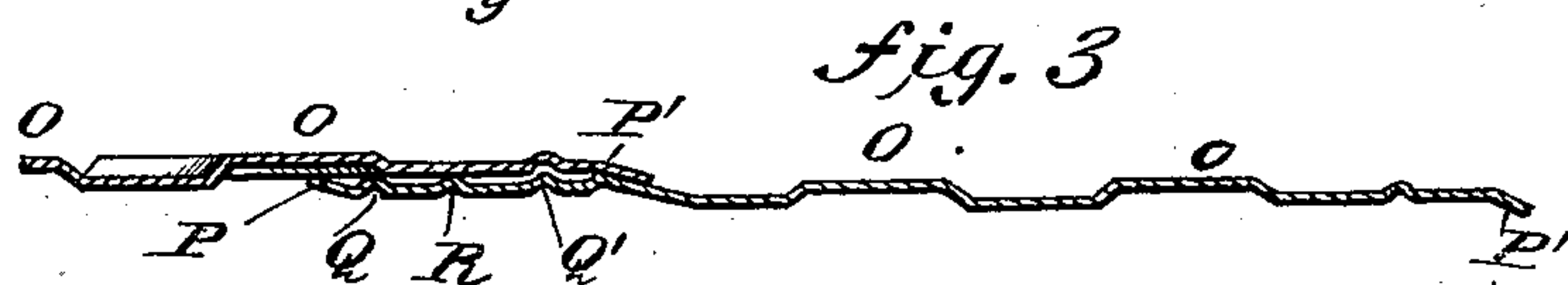
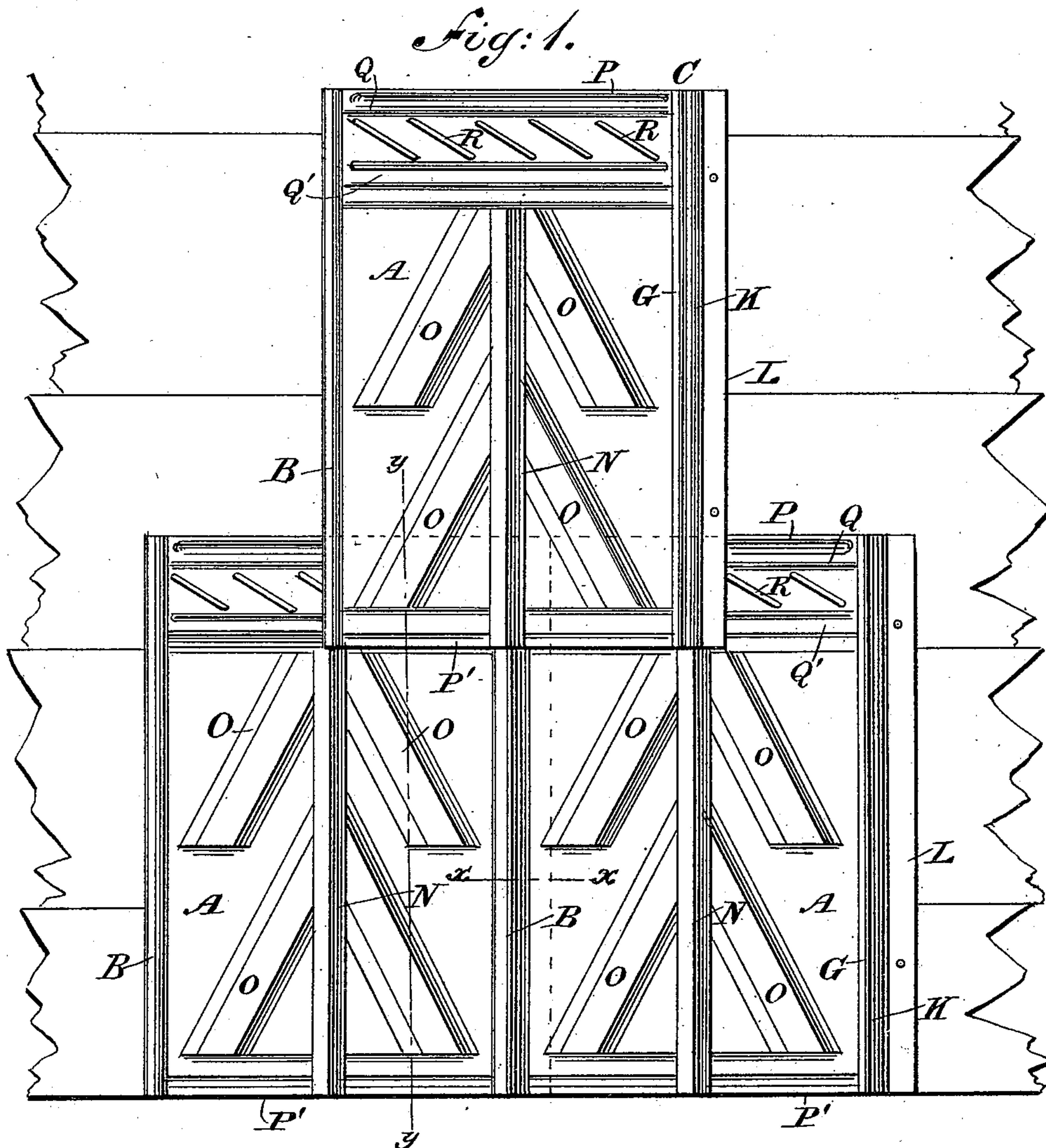


(No Model.)

H. H. BOHEN.
METALLIC SHINGLE.

No. 471,938.

Patented Mar. 29, 1892.



UNITED STATES PATENT OFFICE.

HERMAN H. BOHEN, OF LEAVENWORTH, KANSAS, ASSIGNOR OF ONE-HALF
TO BERNARD KORMAN, OF SAME PLACE.

METALLIC SHINGLE.

SPECIFICATION forming part of Letters Patent No. 471,938, dated March 29, 1892.

Application filed June 13, 1891. Serial No. 396,132. (No model.)

To all whom it may concern:

Be it known that I, HERMAN H. BOHEN, of Leavenworth, in the county of Leavenworth and State of Kansas, have invented a new and Improved Metallic Shingle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved metallic shingle, which is simple and durable in construction and when applied forms a double lock to prevent rain driven by a storm from passing underneath, at the same time permitting free expansion and contraction.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement as applied. Fig. 2 is an enlarged sectional end view of the double lock on the line *xx* of Fig. 1, and Fig. 3 is a section on line *yy* of Fig. 1.

The improved metallic shingle is provided with a body part A, formed on one side with a male lock B and on the opposite side with a female lock C, adapted to be engaged by the male lock of the next following shingle. The male lock B is provided with an upwardly and outwardly extending flange D, leading from the end of the body part, as plainly illustrated in Fig. 2, the upper end being doubled over to form a downwardly and inwardly extending flange E, extending about parallel to the flange D. The lower end of the flange E is doubled up to form a flange F, which extends upwardly and outwardly about midway between and parallel to the flanges D and E. The female lock C is provided with a V-shaped ridge G, extending from the body part A, the outer edge of the ridge G continuing in a flange H, which extends upwardly and inwardly relative to the body part, is doubled up at its upper end to form a flange I, which extends downwardly and outwardly to be doubled up at its lower end to form a flange J, laid close to the flange I and continuing into a flange K, doubled onto the flange A, previously described, and continuing downward and out-

ward into a nailing-flange L, adapted to be secured in the usual manner to the board for supporting the shingle. In order to place the shingles in position on the roof or other part of the building, the first shingle is nailed down in the usual manner at the flange L and then the other shingle is passed with its male lock B into the female lock C from one end, whereby the flange E passes onto the outer part of the V-shaped ridge G, while the other flange F passes between the flanges H and I, the upper end of the said flange F extending close to the curved bend between the said flanges H and I. (See Fig. 2.) Thus the two locks B and C form a double lock, which makes it utterly impossible for rain moisture to be driven underneath the two shingles. It will be seen that the flanges H, with the outer part of the ridge G, forms a channel for carrying off the water which may be driven up over the ridge G. It will further be seen that the locks B and C permit free lateral, as well as longitudinal, extension and contraction, so that the shingles do not warp. Each of the shingles is also provided in the middle of its body part with a longitudinally-extending V-shaped ridge N, adapted to pass or lap onto the upper end of the male lock B of the course of shingles next below. (See Fig. 1.) The body part of each shingle is also provided with diagonally-extending grooves O for breaking the force of the water passing down the shingles. The upper end P of each shingle is bent upward and next to this bend is arranged a lateral bead Q, below which are arranged diagonal ridges R, and below the latter is formed a second ridge Q', parallel to the ridge Q. The lower end P' of each shingle is bent downward and is adapted to pass over the ridges Q' of the two shingles next below, as plainly illustrated in Fig. 1. The said ridges Q Q', the diagonal ridges R, and the bent-up end P prevent the water from being driven over the upper ends of the shingles. It will further be seen that the shingle is very simple and durable in construction and can be easily applied by any person having ordinary skill.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A metallic shingle comprising a body

part, a male lock formed on one side of the shingle and having three flanges arranged as described and a female lock formed on the other side of the body part and provided with
5 a hook-shaped interlocking flange adapted to be engaged by the flanges of the male lock of the next following flanges, substantially as described.

2. A metallic shingle comprising a body
10 part, a male lock formed on one side of the shingle and provided with three continuous flanges, of which the last extends between the other two, and a female lock formed on the other side of the body part and provided with
15 a ridge and a hook-shaped doubled flange extending from the said ridge and adapted to be engaged by the flanges of the male lock of the next following shingle, substantially as shown and described.

20 3. A metallic shingle comprising a body part, a male lock formed on one side of the shingle and provided with three continuous

flanges, of which the last extends between the other two, a female lock formed on the other side of the body part and provided with a
25 ridge and a hook-shaped doubled flange extending from the said ridge and adapted to be engaged by the flanges of the male lock of the next following shingle, and a nailing-flange extending outward from the said hook-
30 shaped doubled flange, substantially as shown and described.

4. A metallic shingle having its upper end bent upward and its lower end bent downward and provided at its upper end with parallel
35 transverse ridges and diagonal ridges between said transverse ridges and with a longitudinally-extending ridge in the middle of the shingle, substantially as described.

HERMAN H. BOHEN.

Witnesses:

CHAS. M. HERTZOG,
THOMAS O. THOMPSON.