(No Model.)

H. W. HARRY.

METALLIC SHINGLE.

No. 380,109. Patented Mar. 27, 1888.

Fig. 1.

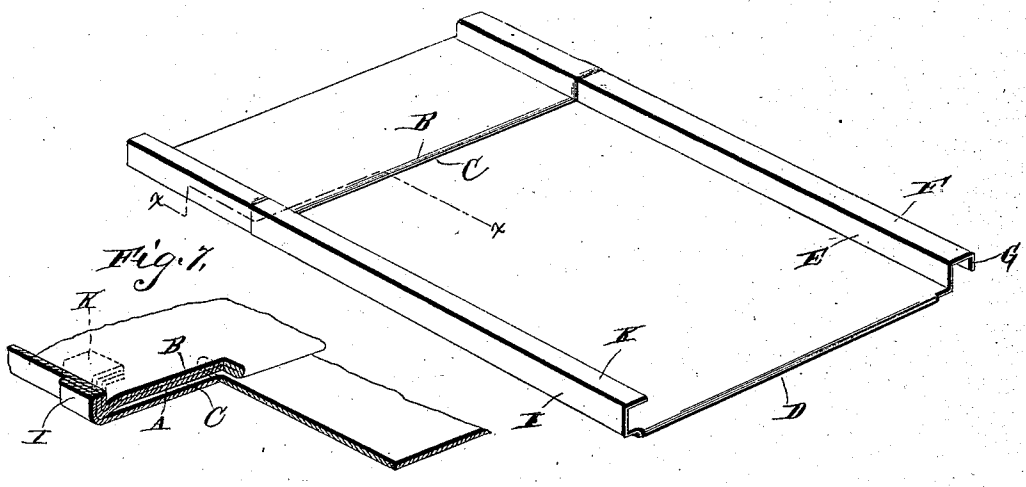


Fig. 7.

Fig. 2.

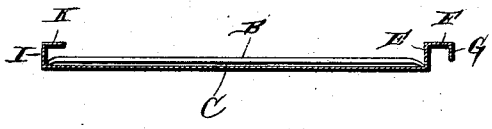


Fig. 3.

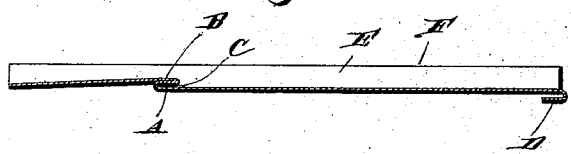


Fig. 6.

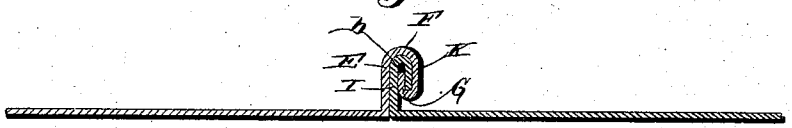


Fig. 4.

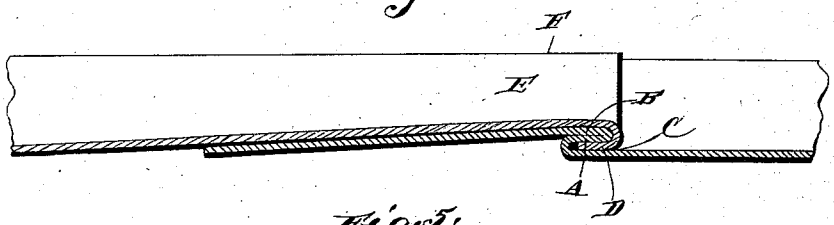
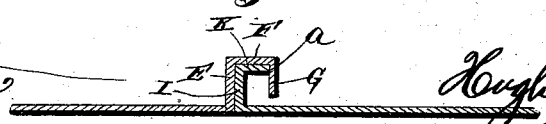


Fig. 5.



Witnesses
C. L. Taylor,
J. W. Garner

Inventor,
Hugh W. Harry
by C. A. Brown & Co
Attorney.

UNITED STATES PATENT OFFICE.

HUGH WALKER HARRY, OF FORT WORTH, TEXAS.

METALLIC SHINGLE.

SPECIFICATION forming part of Letters Patent No. 380,109, dated March 27, 1888.

Application filed November 4, 1887. Serial No. 254,305. (No model.)

To all whom it may concern:

Be it known that I, HUGH WALKER HARRY, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and useful Improvement in Metallic Shingles, of which the following is a specification.

My invention relates to an improvement in metallic shingles; and it consists in the peculiar construction and arrangement of parts, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a metallic shingle embodying my improvements. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a longitudinal sectional view of the same. Figs. 4 and 5 are longitudinal and transverse sectional views respectively illustrating the manner of attaching my shingles together when forming a roof. Fig. 6 is a sectional view showing the joint pressed together; and Fig. 7 is a section on the line *x x*, Fig. 1.

In order to construct my shingle I procure a rectangular piece of tin or other sheet metal of suitable size and double the same in a transverse direction, at the distance of a few inches from one end, to form a turned-over edge, A, which extends entirely across the shingle. Another turned-over edge, B, is then formed in the shorter end of the shingle and on the upper side thereof, at a slight distance from the turned-over edge A and parallel thereto, thereby forming a transverse groove or recess, C, on the face of the shingle at a distance from the upper end thereof. The lower end of the shingle is provided on its under side with an upturned edge or flange, D, which extends transversely on the shingle to within a slight distance of the side edges thereof. One side of the shingle is then bent upward at right angles to form a flange, E. The said flange is bent outward at right angles to form the horizontal flanged portion F, and the outer edge of the said horizontal flanged portion is bent downward at right angles to form the vertical flange G. The opposite side of the shingle is bent upward to form a vertical flange, I, which is similar to the flange E, and the upper portion of the said vertical flange I is bent inward at right angles to form a horizontal flange, K.

The manner of laying my shingles on a roof is as follows: The shingles are laid in horizontal courses, side by side, with the flange portion F of each shingle extending over the flange portion K of the adjacent shingle and the flange portion G extending downward over the inner edge of the said flange portion K, as shown at letter *a* in Fig. 5. The upper end of each shingle is secured by nailing it to the roof. The lower ends of the shingles of the next horizontal course are lapped over the upper ends of the subjacent shingles in the lower course, and the upturned flanges D of the upper shingles are caused to engage and fit snugly in the recesses C in the lower shingles, thereby effectually securing the lower ends of the shingles of each successive course to the upper portion of the shingles of the lower course. When the shingles have all been laid, the depending flanges G are first bent upward under the flanges K, and the flanges F and K are then bent downward to a vertical position, as shown at *b* in Fig. 6, thereby firmly securing the sides of the shingles together and making water-tight joints between them.

Inasmuch as the recesses C are formed in the shingles by bending and creasing the same and trebling the thickness of the shingle-plate, it will be seen that no notches or openings whatever are formed in the shingle-plate; that the latter is kept intact, and that the joint effected by the engagement of the flange D at the lower end of one shingle with the recess or opening C near the upper end of the lower shingle will be perfectly water-tight, and therefore a roof covered with my metallic shingle cannot leak.

In Fig. 7 I show what is termed a "cross-lock joint" between the sides of the shingle. It will be seen that the two turned-over edges A B are each turned over at the sides of the shingle to correspond with the side joints of the shingles, thus forming a double thickness at the joint. It is customary to notch the shingles at the sides, in order to form the joint; but by my arrangement this notching is dispensed with, and a double lock is insured by turning over the edges A B at the sides, as shown.

Having thus described my invention, I claim—

1. A metallic shingle bent and doubled near

its upper end to form the turned-over edges A B and the transverse recess C, said shingle having the vertical flange I at one side, the horizontal inwardly-extending flange K at the upper edge of flange I, and the vertical flange E at its opposite side, having the outwardly-extending flanged portion F at its upper edge and the depending flange G at its outer edge of the flanged portion F, substantially as described.

2. A roof made up of a series of metallic shingles bent and doubled at the ends, as at A B, and the joint at the sides of the shingle, the doubled ends A B being bent at the sides to correspond with the joint at the sides of the shingle, whereby a double thickness is provided at the sides of the end joints and notching is obviated, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HUGH WALKER HARRY.

Witnesses:
THOMAS A. COUGHLIN,
S. F. GILMORE.