C. COMSTOCK.

METALLIC ROOFING SHINGLES.

No. 194,766. Patented Sept. 4, 1877.

Fig: 1

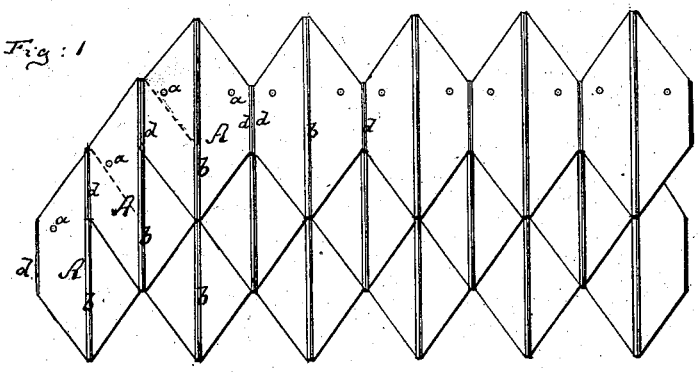


Fig: 2

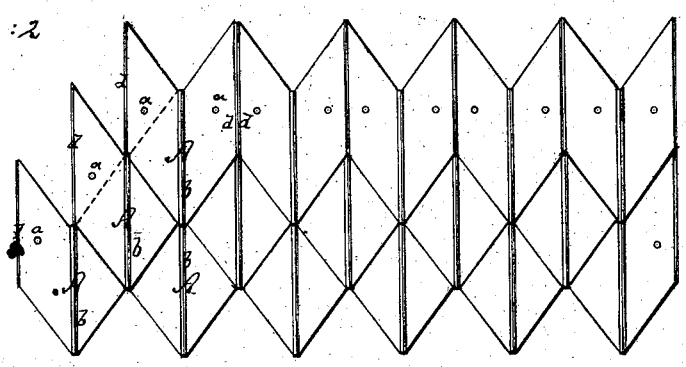


Fig: 3

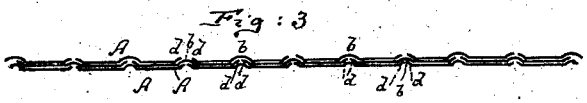


Fig: 4

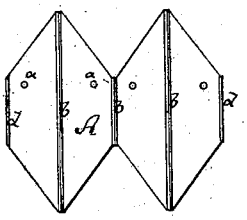


Fig: 5

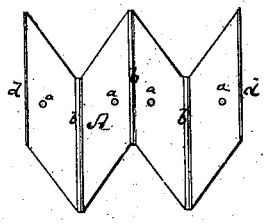


Fig: 6

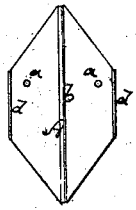


Fig: 7

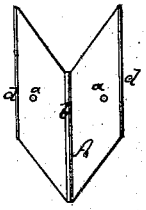


Fig: 8.

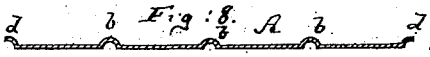
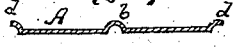


Fig: 9



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by his attorney
A.V. Briesen

UNITED STATES PATENT OFFICE.

CHESTER COMSTOCK, OF NEW CANAAN, CONNECTICUT.

IMPROVEMENT IN METALLIC ROOFING-SHINGLES.

Specification forming part of Letters Patent No. **194,766**, dated September 4, 1877; application filed March 16, 1877.

To all whom it may concern:

Be it known that I, CHESTER COMSTOCK, of New Canaan, in the county of Fairfield and State of Connecticut, have invented a new and Improved Metallic Roofing-Shingle, of which the following is a specification:

Figures 1 and 2 are face views of parts of roofs covered with my improved shingles. Fig. 3 is a cross-section of a series of such superposed shingles. Figs. 4, 5, 6, and 7 are face views of different kinds of such shingles. Figs. 8 and 9 are enlarged sectional views of two of said shingles.

Similar letters of reference indicate corresponding parts in all the figures.

This invention has for its object to furnish a durable and slightly-flexible substitute for the ordinary wooden shingles and slates which are used for roofing purposes.

The invention consists in the production, as a new article of manufacture, of a sheet-metal shingle which is provided with a hollow central rib in the middle, and with half-ribs along its vertical edges, the central rib of one shingle being adapted to overlap the two adjoining half-ribs of two shingles placed underneath, so as thereby to cause the several shingles to interlock laterally and yet rest flush upon one another.

In the drawing, the letter A represents the improved flexible shingle, made of sheet metal, of equal thickness throughout, and of suitable form, though the form shown is preferred.

The sheet metal may be plain, or galvanized, or otherwise prepared to make it resist the weather, and may be painted before or after application to the roof.

Each of these sheet-metal shingles has or receives, when applied, one or more perforations, *a*, at its upper part, for admitting the fastening-nails, pins, or staples. When staples are used they will fasten two adjoining shingles with one staple.

Each of said sheet-metal shingles is provided with a longitudinal central rib, *b*, forming a groove along its under side, as indicated in Figs. 3, 8, and 9. By "central" I mean equidistant from both vertical edges. The vertical edges *d d* of such a shingle are in that case also turned up, so that where two such edges *d d* are placed side by side they will form nearly or entirely a hollow rib similar in form to the hollow rib *b*.

On a roof these shingles are placed to break joints, so as thereby to cause the hollow rib *b* of every upper shingle to fit over and embrace the turned-up edges *d d* of the two contiguous shingles next below, as clearly shown in Fig. 3.

This construction gives strength to the shingles, causes them to lock together laterally, and forms guides for the rain-water, and yet allows the upper shingles to lie flush on the lower.

The edges *d d* of all the shingles, excepting the upper and outer series, are covered by ribs *b* of the shingles next above. In the uppermost course these edges *d* may be covered by hollow caps of semi-cylindrical form. On the sides of the roof, the edges *d*, coming in contact with copings, chimneys, or walls, will aid in producing close joints.

Additional hollow ribs or beads may be provided, if desired.

The shape of each shingle is preferably that shown, to wit, with V-shaped upper and lower ends. This economizes material in the production of the shingles, and makes a proper lap, but not any waste. It also gives to the finished roof a symmetrical and desirable appearance.

The upper end may either have a single V-shaped projection, as in Figs. 1 and 6, or a double V-shaped projection, as in Figs. 2 and 7.

In Figs. 4, 5, and 8, I have shown a modification in the form of a double shingle in one piece. In fact, these metallic shingles may be made of any suitable width.

I claim as my invention—

A metallic roofing-shingle made with central hollow rib *b* and with raised edges *d d*, all arranged so that the central rib of every shingle is adapted to embrace the two adjoining raised edges *d* of two shingles placed next below, and so that the upper shingle rests flush upon the two lower shingles, substantially as herein shown and described.

CHESTER COMSTOCK.

Witnesses:

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CHARLES I. RAYMOND.