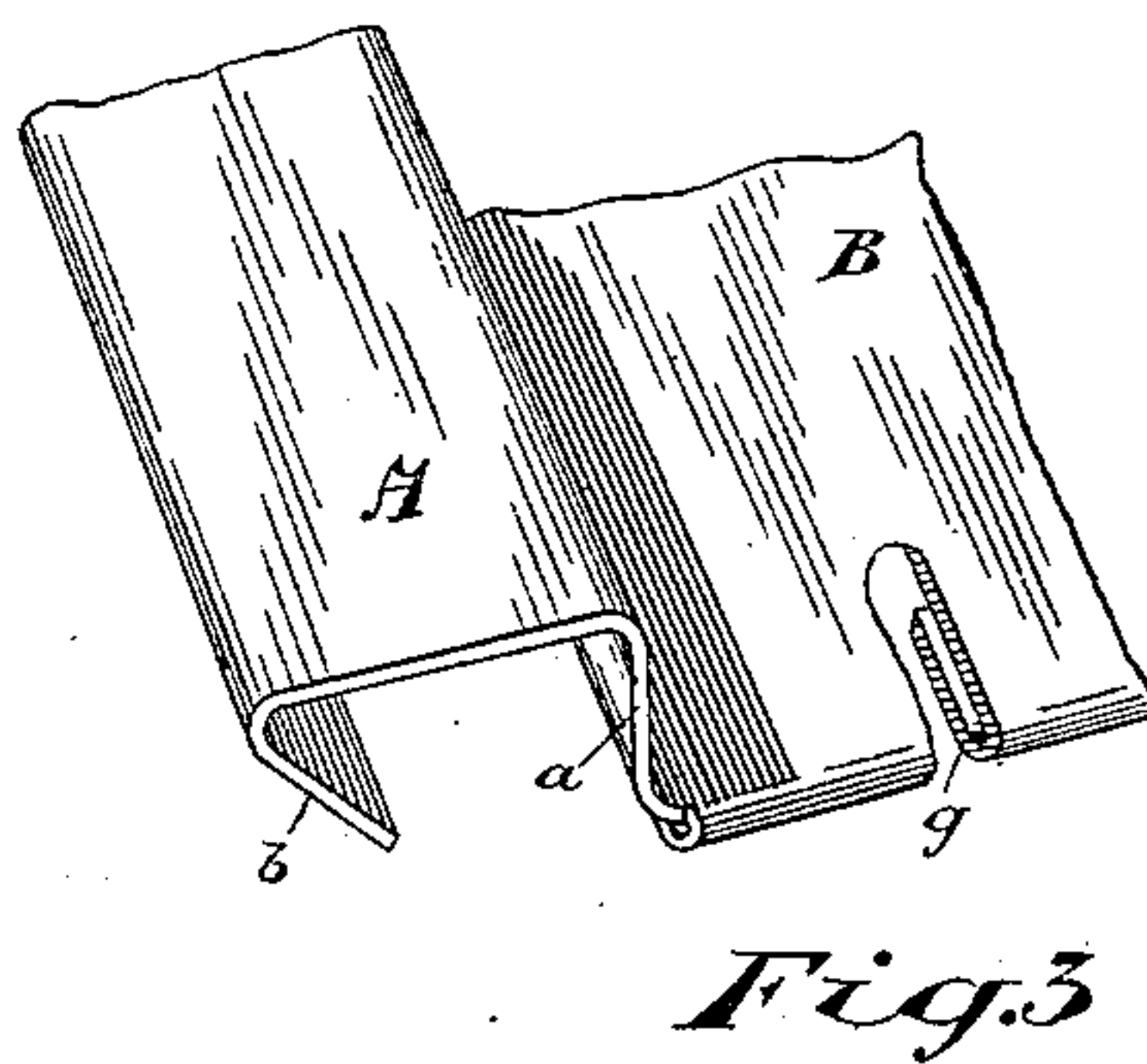
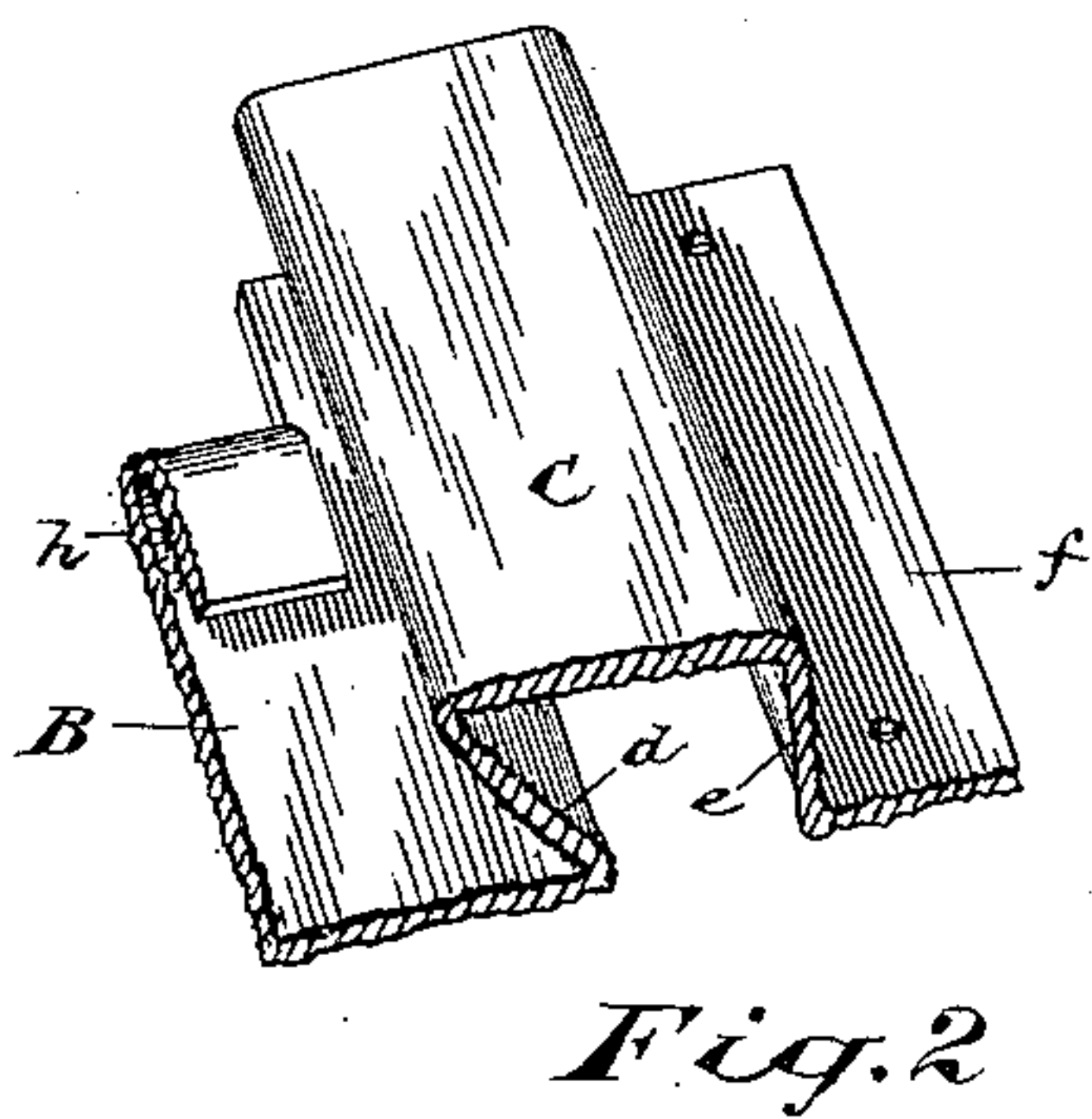
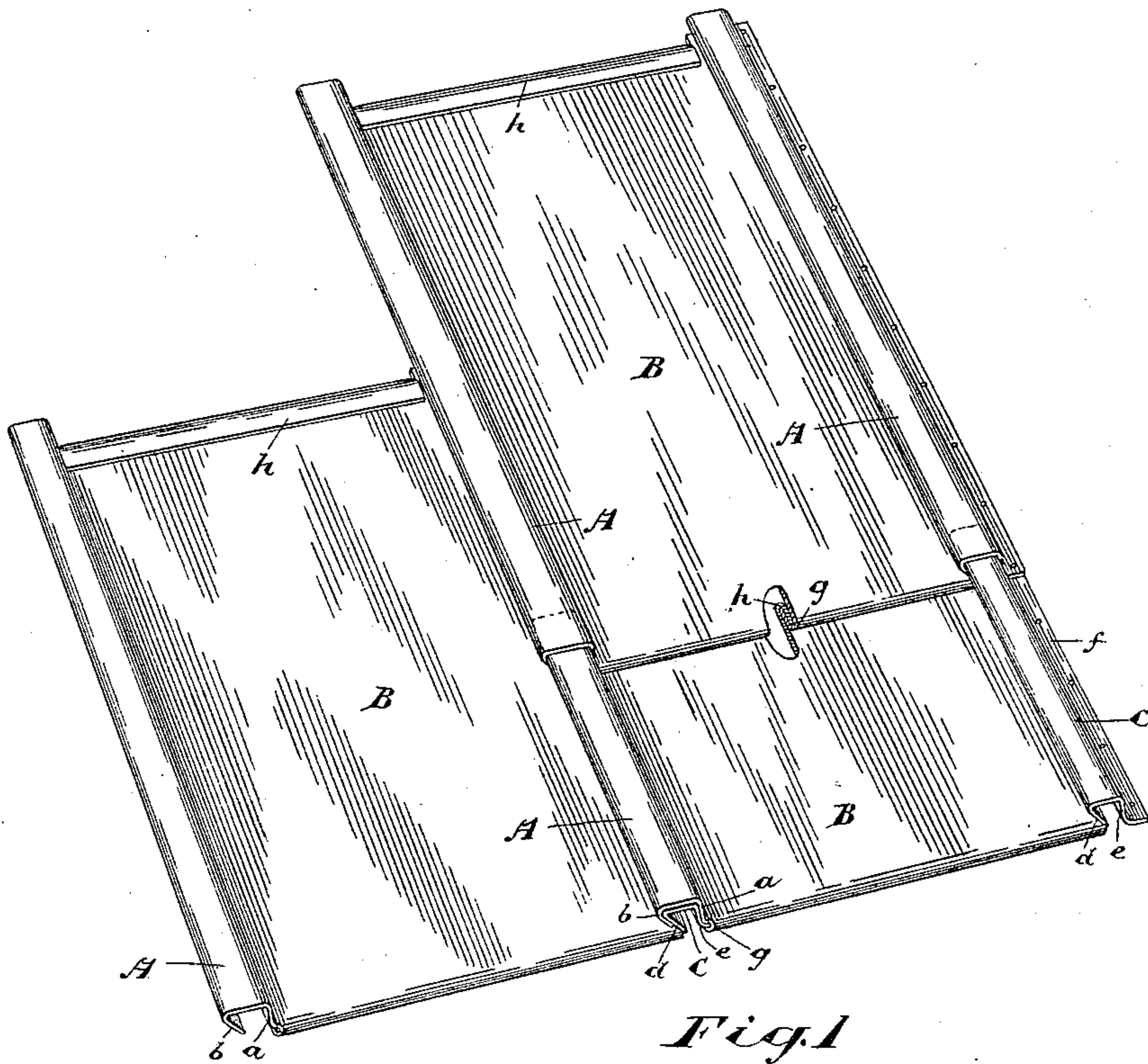


(No Model.)

J. O. THORN.  
METALLIC SHINGLE.

No. 466,198.

Patented Dec. 29, 1891.



Witnesses

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John E. Cameron

Inventor:

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Attys.



# UNITED STATES PATENT OFFICE.

JOHN O. THORN, OF TORONTO, CANADA.

## METALLIC SHINGLE.

SPECIFICATION forming part of Letters Patent No. 466,198, dated December 29, 1891.

Application filed June 13, 1891. Serial No. 396,118. (No model.) Patented in Canada April 21, 1891, No. 36,422.

*To all whom it may concern:*

Be it known that I, JOHN ONIONS THORN, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Metallic Shingles, of which the following is a specification.

The object of the invention is to design a joint for sheet-metal shingles by which the said sheet-metal shingles may be readily connected together by any unskilled person, the said joint being such that it will be perfectly water-tight; and it consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described, and then definitely claimed.

Figure 1 is a perspective view showing how my improved joint is formed between the shingles. Figs. 2 and 3 are enlarged details of the hollow ribs by which the joint is formed.

In the drawings, A represents a hollow rib formed on one side of the metal plate or shingle B, and C represents a hollow rib formed on the opposite side of the said shingle. It will be observed that the inner wall *a* of the hollow rib A is substantially at right angles to the surface of the plate or shingle B, while the outer wall *b* of the said rib is set in at an angle of about forty-five degrees, forming a hook to overlap and engage with the hollow rib C, formed on the adjoining shingle. The inner wall of this hollow rib C is set in at an angle to substantially correspond with the outer wall *b* of the rib A, while the outer wall *e* corresponds with the outer wall *b* of the rib A. At the base of the outer wall *e* I form a nailing edge *f*. As indicated by the drawings, a metal plate or shingle B is nailed along the edge *f*, and the hollow rib A, formed on the adjoining metal plate or shingle, is then sprung over the hollow rib C, thereby covering the nailing edge *f*, thus securing together the metal plates or shingles. The metal plates or shingles are preferably arranged so that their hollow ribs shall run vertically, so that they will not interfere with the free escape of rain-water or anything else which may fall on the said shingles.

In order to form the horizontal joints between the shingles, I fold under the bottom edge *g* of the upper shingle and I fold over the top edge *h* of the lower shingle, hooking the two together, as indicated in Fig. 1. From this description it will be seen that I have designed a joint for metal plates or shingles so simple in form that any unskilled person would be able to quickly and easily connect the metal plates or shingles together and that the joints between the shingles will be water-tight.

I am aware of the Patents Nos. 256,083 and 309,175, and make no claim to anything shown therein, as I consider my invention as essentially different from the subject-matter of said patents, inasmuch as by turning over and under the upper and lower edges between the ribs, as above described, it is not necessary to nail every shingle, as the upper shingles, if nailed, will sustain the lower ones, and thus, besides forming a better joint, less work is required in laying the shingles and fewer nails are required to secure them.

What I claim as my invention is—

As an improved article of manufacture, a metallic shingle having a hollow rib C, formed on one side, with a nailing edge *f*, formed at the base of the outer wall *e* of the said rib C, the inner wall *d* of which is set in substantially at an angle of forty-five degrees, a hollow rib A being formed on the opposite side of the said shingle, the outer wall of this rib A being set at an angle to substantially correspond with the inner wall *d*, while the inner wall of the rib A is substantially at right angles to the surface of the shingle, said shingle having its lower edge between said ribs turned under and its upper edge between the ribs turned over and arranged to engage with the lower turned-under edge, substantially as and for the purpose specified.

Toronto, May 28, 1891.

JOHN O. THORN.

In presence of—

J. EDW. MAYHU,  
W. G. McMILLAN.