

(No Model.)

J. B. HOAGLAND.
METALLIC SHINGLE.

No. 349,095.

Patented Sept. 14, 1886.

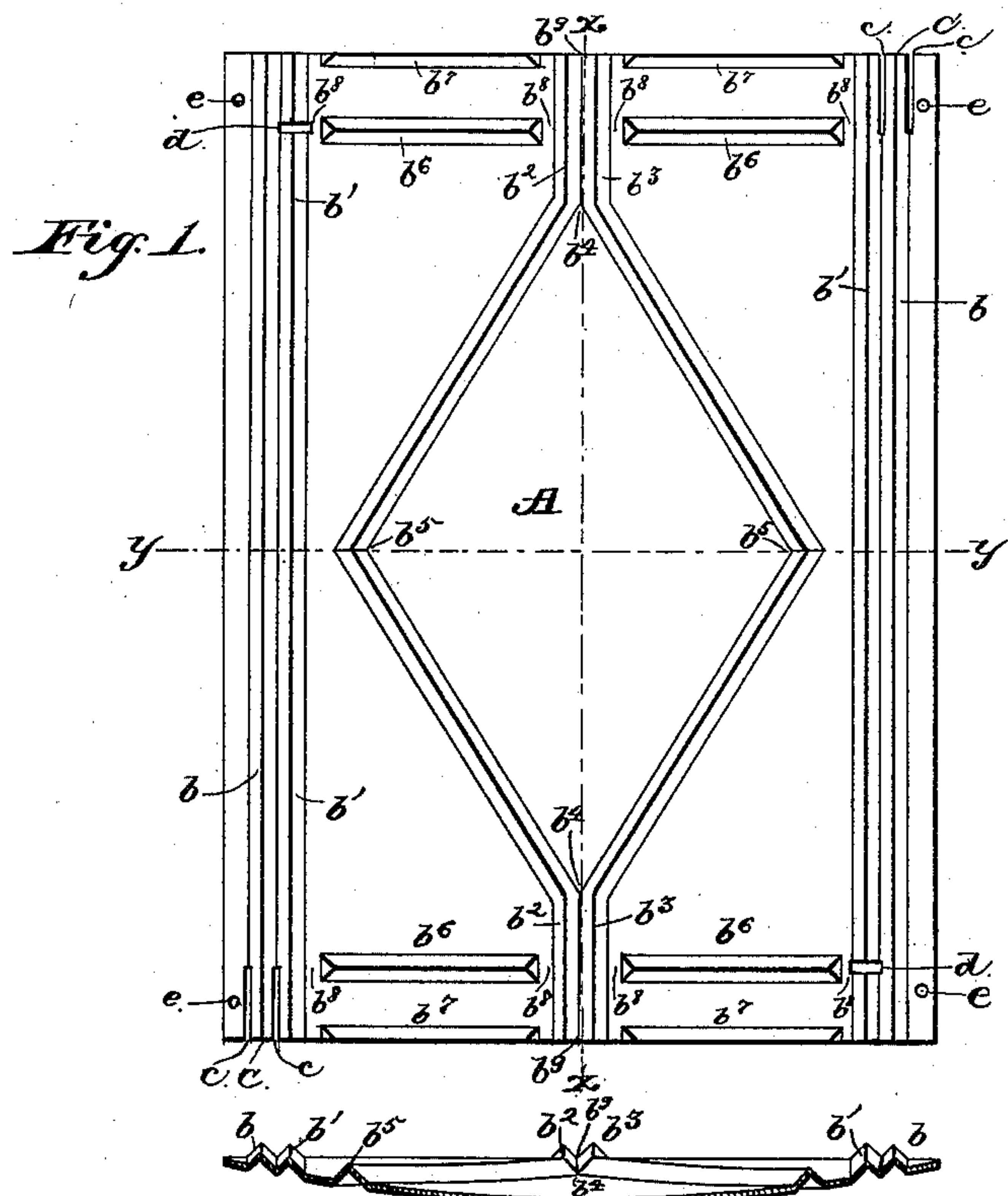


Fig. 1.

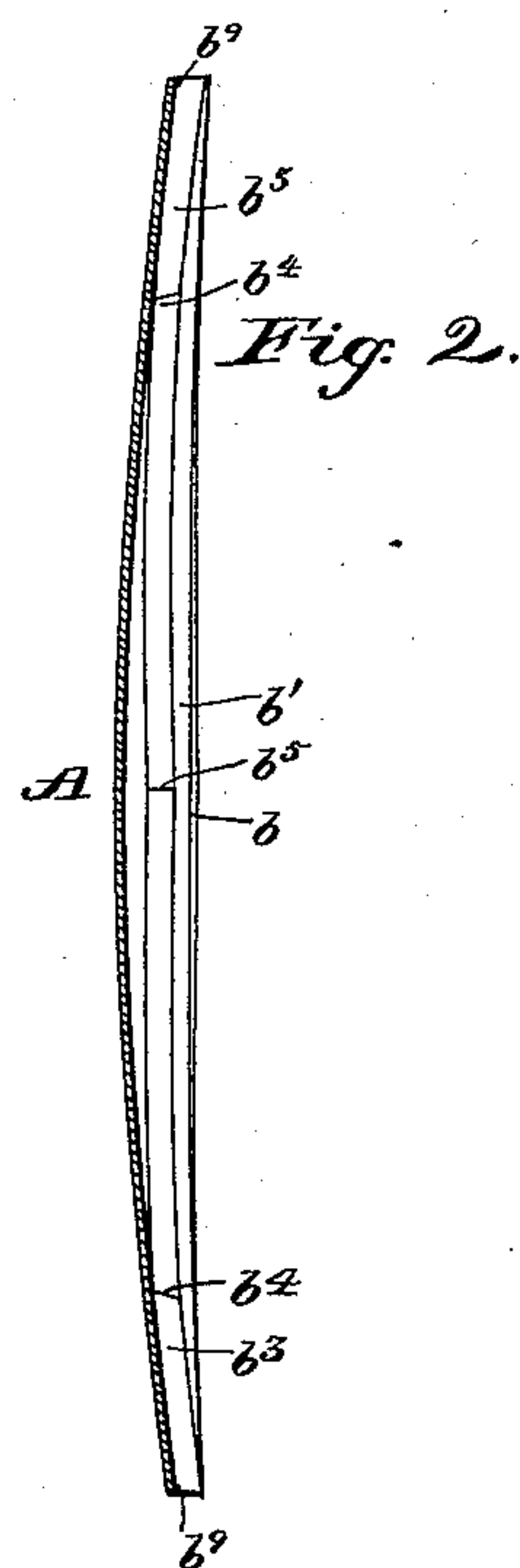


Fig. 2.

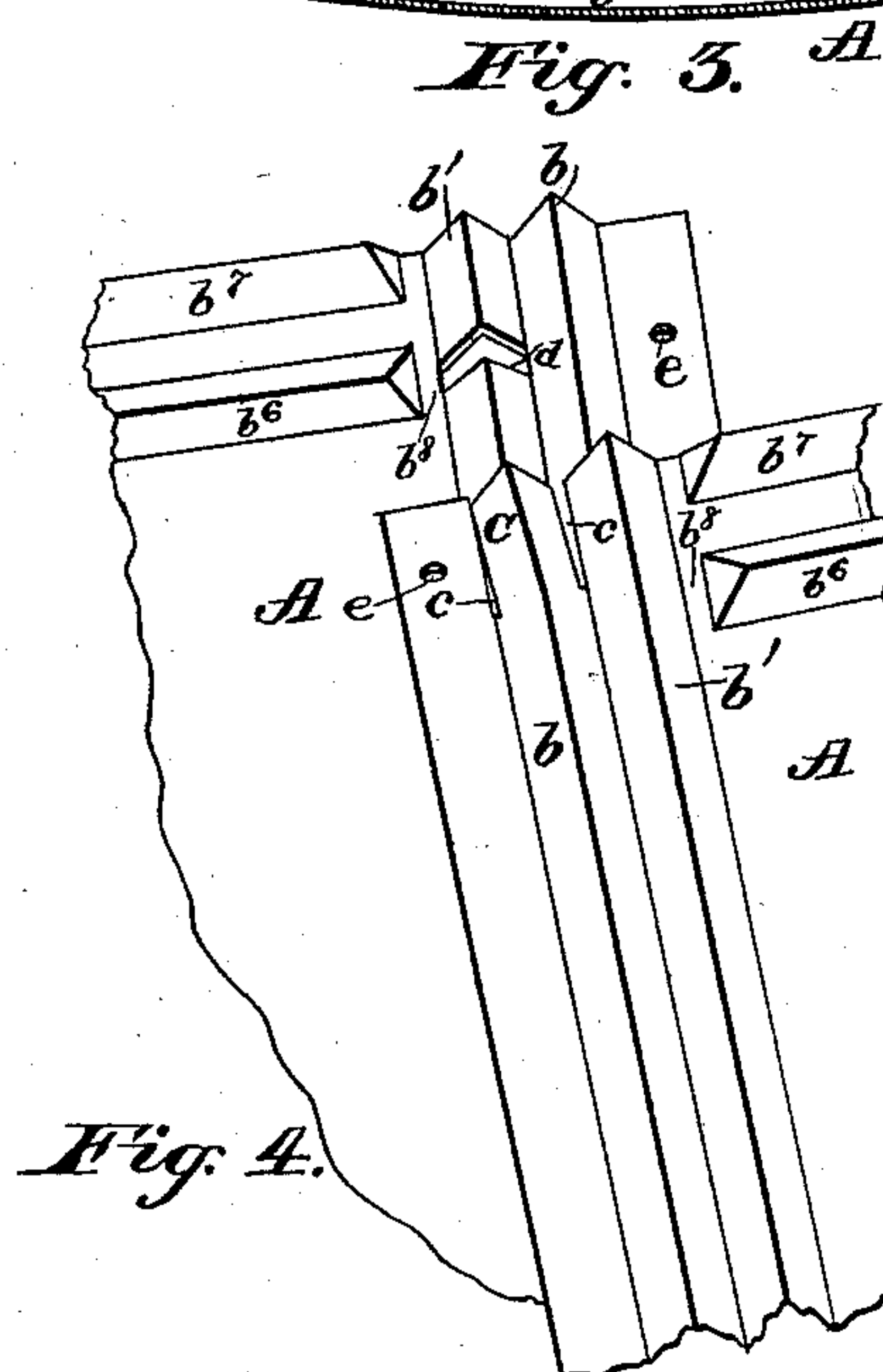


Fig. 4.

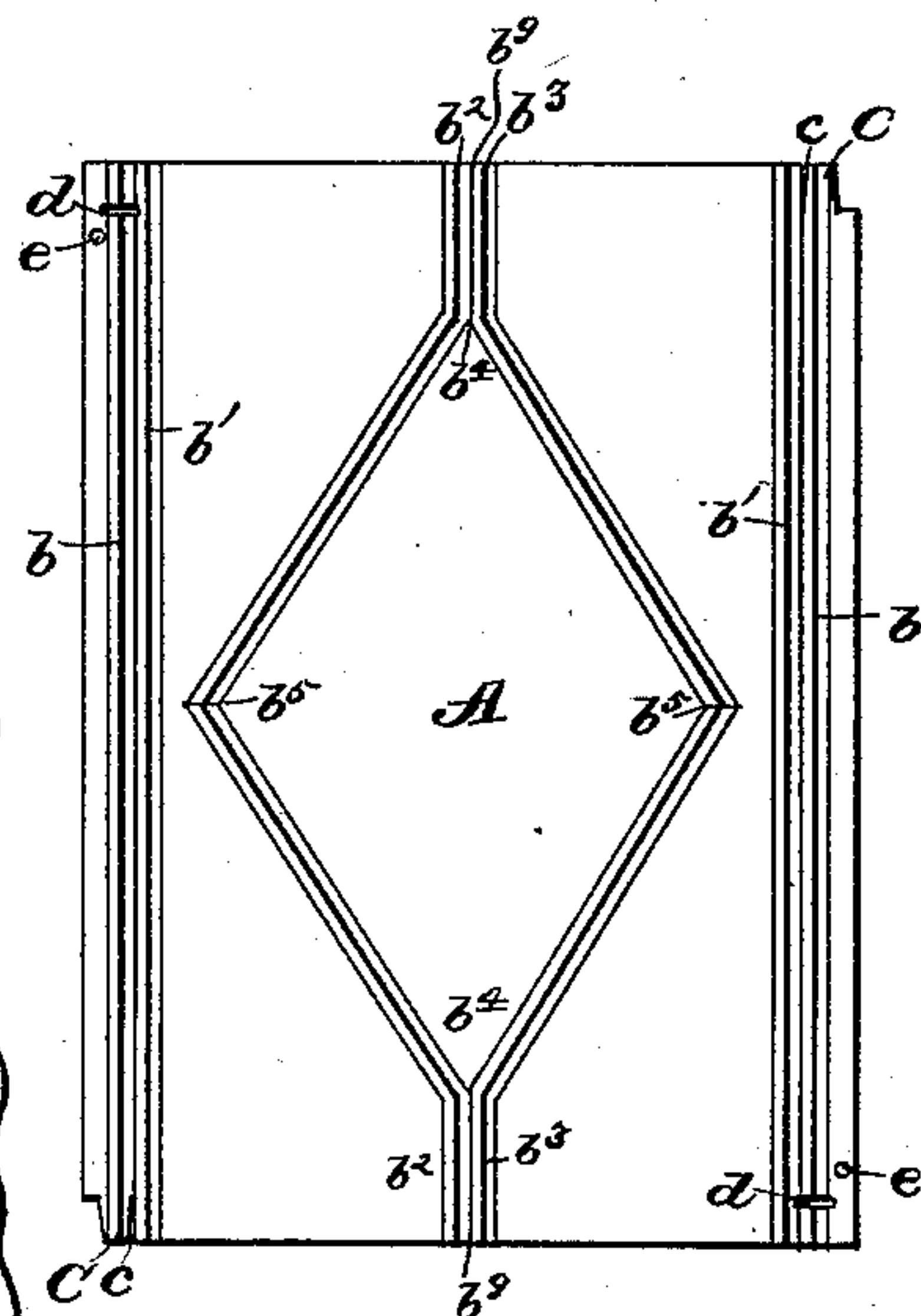


Fig. 5.

Witnesses

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By his Attorneys

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UNITED STATES PATENT OFFICE.

JOHN B. HOAGLAND, OF NASHVILLE, TENNESSEE, ASSIGNOR OF ONE-HALF
TO WILEY B. SHEFIELD, OF SAME PLACE.

METALLIC SHINGLE.

SPECIFICATION forming part of Letters Patent No. 349,095, dated September 14, 1886.

Application filed February 9, 1886. Serial No. 191,353. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HOAGLAND, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Improvement in Metallic Shingles, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to metallic shingles, and has for its object the provision of an article of the class named adapted to closely fit against the surface of roof or wall when in position, whereby rain or snow is effectually prevented from coming into contact with the building beneath said shingle.

The invention further contemplates the provision of a metallic shingle having means whereby adjacent shingles may be locked together before being secured to the roof or wall. To the accomplishment of the above ends the invention consists in the construction of the article named and in its mode of application to a roof or wall, substantially as hereinafter described, and specifically pointed out in the claims.

In the drawings, Figure 1 represents a plan view of a metallic shingle constructed in accordance with my invention. Fig. 2 represents a longitudinal section thereof on the line $x x$ of Fig. 1. Fig. 3 is a transverse section on the line $y y$ of Fig. 1. Fig. 4 represents a detail view of the means employed to lock adjacent shingles together. Fig. 5 represents a modified form of shingle.

Referring to the drawings, in which similar letters of reference denote similar parts, A designates the shingle having in outline the form of parallelogram, the surface of which is concavo-convex—i. e., concave upon one side and convex upon the other, the convex side in practice placed in contact with the roof or wall.

$b b'$ designate outwardly-formed corrugations at each side and parallel with the side edges of the shingle, for the purpose of preventing the entrance of rain, snow, &c., to the surface of the roof or wall beneath the shingle when it is in position thereon.

$b^2 b^3$ designate similar corrugations, extending inwardly from each other toward the middle of the shingle for a short distance to points

b^4 , thence crossing the surface of the shingle diagonally and in opposite directions to points b^5 , thus forming in outline a diamond figure in the middle of the shingle, as shown, for a purpose similar to that on the corrugations $b b'$.

b^6 designates corrugations, that extend transversely of the shingle near the ends thereof, terminating a short distance from the corrugations $b' b^2$, whereby water-courses b^8 are formed between said corrugations b', b^2 , and b^6 . b^7 designates bent portions formed upon the extreme ends of the shingle that when said shingle is in position fit upon the surface of the corrugation b^6 to form a water-tight joint.

b^9 designates the groove between the corrugations $b^2 b^3$ at ends of the diamond-shaped figure, such groove forming water-courses.

It will be understood that the ends of the corrugations b^6 operate in connection with the corrugations $b' b^2$ to prevent lateral displacement of the shingles when in position. I deem this feature of importance.

The corrugations described are preferably V-shaped in cross-section, (see Fig. 3,) but may be, if desired, U-shaped, or said corrugations may have flat upper surfaces connected with the body of the shingle by sides at angles thereto.

C designates tongues formed at each end of the body of the shingle, at one side thereof by slits c , that extend inwardly for a short distance at each side of the outer corrugations, b , as shown.

d designates slits formed transversely of the corrugation portion b' , upon the opposite side of the shingle and to a distance from its end corresponding to the depth of the slits c .

e designates apertures formed at or near the corners of the shingle for the passage of nails, whereby to secure it to the building.

In practice a shingle is placed upon a roof or wall, its convex side down and secured to said roof or wall at one of its side edges by nails. The next adjacent shingle is now placed in position, the tongue C at the upper end thereof being inserted into the transverse slit d of the first-named shingle, which is now, together with one of the side edges of the last-named shingle, secured to the roof or wall. In similar manner any desired number of shingles are placed in position, and secured to the roof

or wall. It will be observed that each shingle is held in position not only by its securing-nails, but also through the tongue C and slit *d* and by the securing-nails of the next adjacent shingle.

Modifications in detail of construction may be made in the above-described invention without departing from the spirit or sacrificing the advantages thereof—as, for instance, the slit *c* may be cut in the side herein shown as having a tongue, C; or slits may be cut at each side of the same shingle, thus producing a shingle that may be laid either right or left. Inasmuch as the concavo-convex shape of the shingle brings the edges thereof below the body, it follows that when the shingles are connected together in series and nailed they are caused to bind against the roof or wall at the edges, thereby making the connection between the shingles and the roof proof against damaging influences of the wind. As the shingles bind against the roof at the point where the joints are made, it necessarily follows that the strength of the joints are also materially increased.

Having thus described my invention, I claim—

1. As a new article of manufacture, a metallic shingle having concavo convex surfaces provided with a series of corrugations, substantially as described.

2. A metallic shingle having concavo convex surfaces provided with corrugations, apertures to receive nails, and means, substantially as described, for locking adjacent shingles together, as and for the purpose set forth.

3. A metallic shingle having concavo convex surfaces provided with corrugations and a locking tongue and slit for locking adjacent shingles together, as set forth.

4. A metallic shingle having concavo convex surfaces and provided with corrugations *b b'*, apertures *c* to receive nails, tongues C, and transverse slits *d*, substantially as described, for the purpose set forth.

5. A metallic shingle having longitudinal

parallel corrugations *b b'*, one of the corrugations having transverse slot *d* and the other corrugation being slitted at *c c* to provide a tongue, C, as set forth.

6. A metallic shingle having parallel longitudinal corrugations *b b'*, as set forth.

7. A metallic shingle having the corrugations *b² b³*, forming an open figure in the center of the shingle, the said corrugations at the ends of the shingle running parallel with each other and providing a water-course, as set forth.

8. A metallic shingle having the longitudinal corrugations *b b'* and the transverse corrugations *b²*, extending to within a short distance of the corrugations *b b'*, leaving a space or water-course, *b³*, as set forth.

9. A metallic shingle having the transverse locking corrugations or projections *b²* and the bent portion or lip *b³*, to engage the corrugations, as set forth.

10. A metallic shingle having the corrugations *b² b³*, forming an open figure in the center, and terminating at the ends of the shingle in a water-course, as set forth.

11. A metallic shingle having the longitudinal corrugations *b b'*, locking devices provided on the corrugations, the transverse corrugations *b²*, and the bent lip or portion *b³*, to engage with the corrugations *b²*, as set forth.

12. A metallic shingle having the longitudinal corrugations *b b'*, locking devices provided on the said corrugations, the transverse corrugations *b²*, extending to within a short distance of corrugations *b b'*, leaving a water-course, *b³*, and the lip or bent portion *b³*, engaging with corrugation *b²*, as set forth.

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

JNO. B. HOAGLAND.

Witnesses:

W. B. SHEFIELD,
ED. LAMENT.