

(No Model.)

H. SMEETON.
METALLIC SHINGLE.

No. 369,477.
Fig. 1.

Patented Sept. 6, 1887.

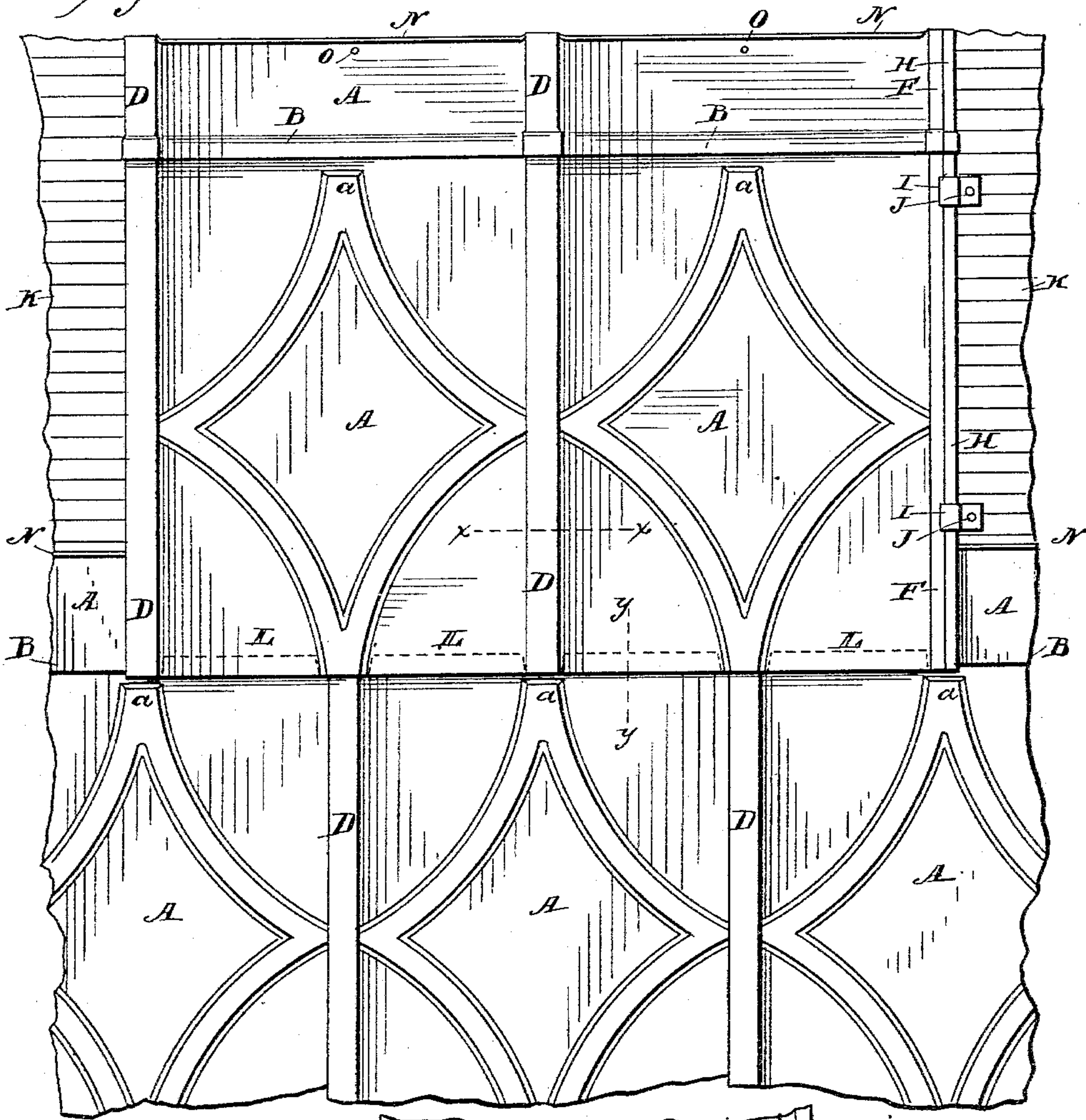


Fig. 1

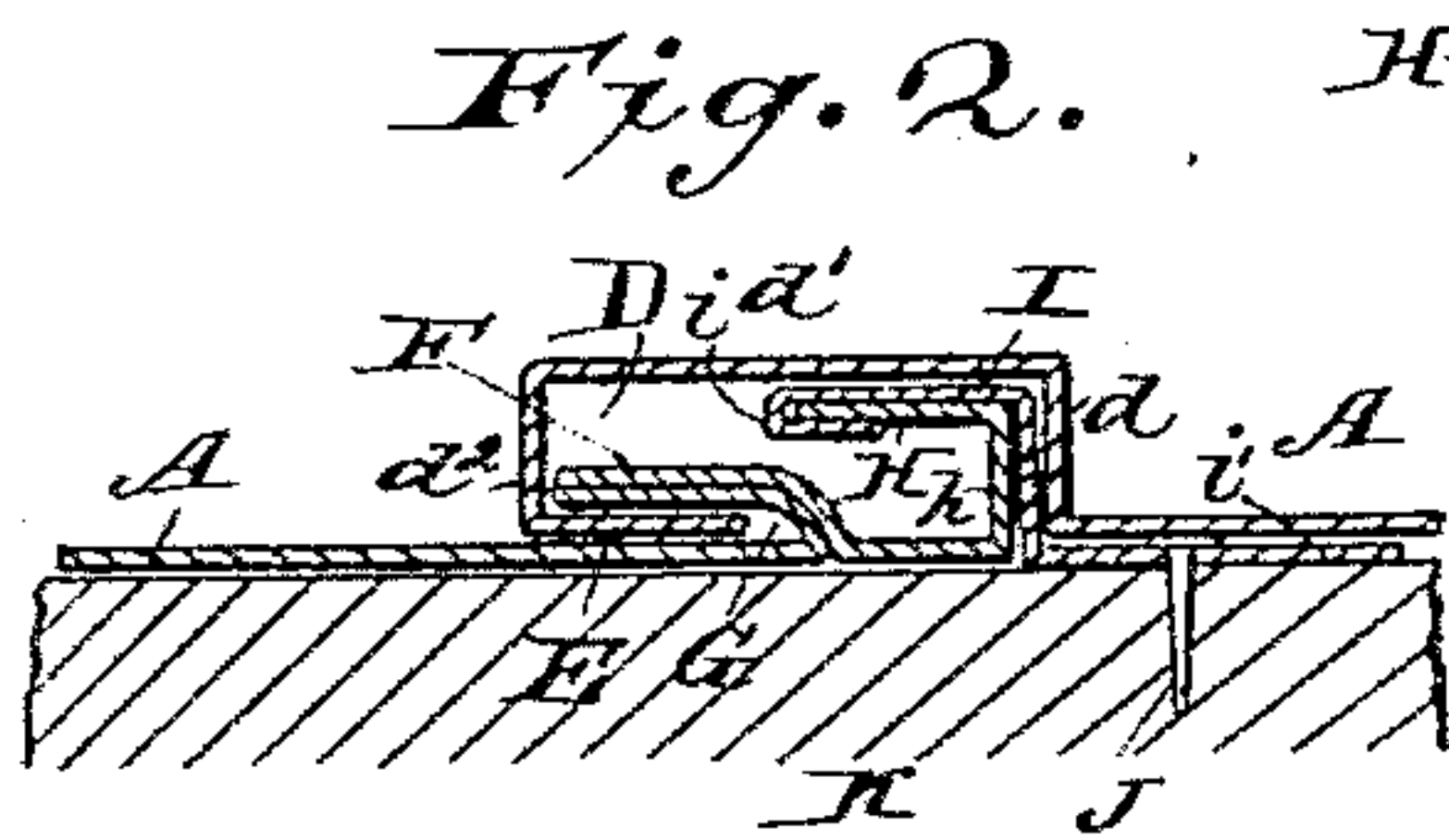


Fig. 2.

WITNESSES:

George Binkenburg
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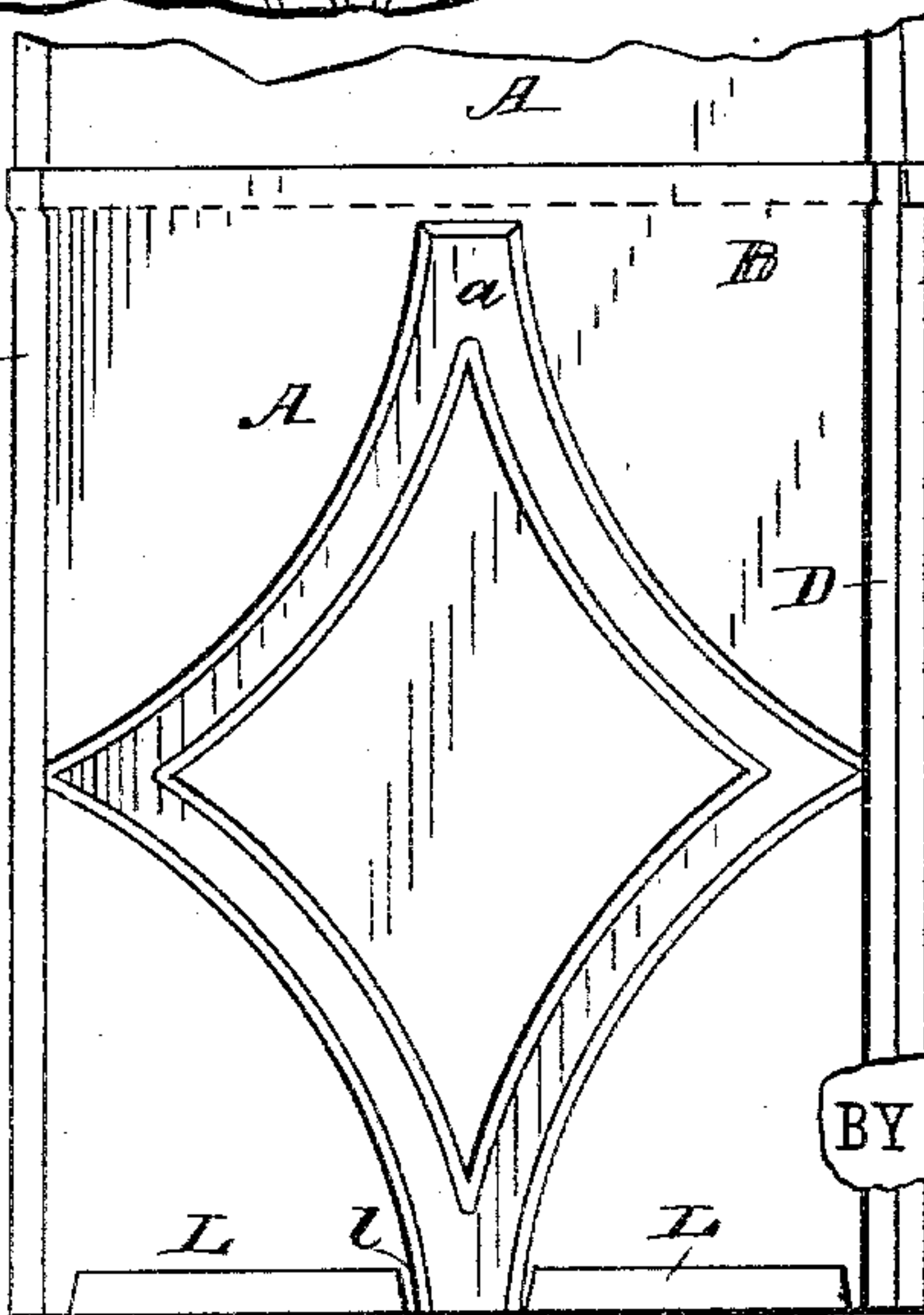
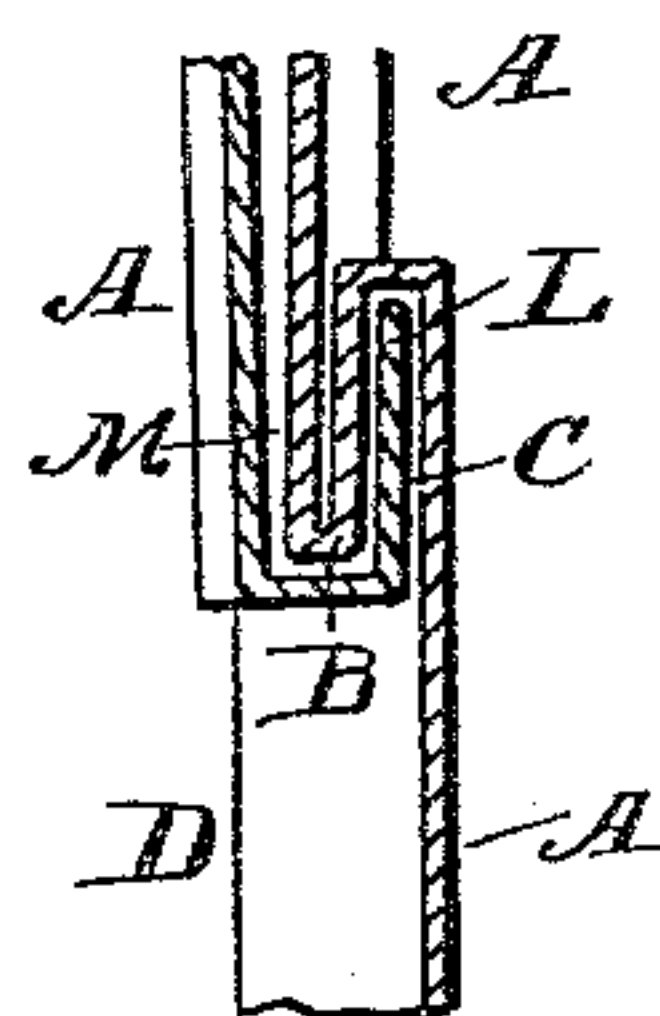


Fig. 3.



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HENRY SMEETON, OF OTTAWA, ILLINOIS.

METALLIC SHINGLE.

SPECIFICATION forming part of Letters Patent No. 369,477, dated September 6, 1887.

Application filed May 17, 1887. Serial No. 238,477. (No model.)

To all whom it may concern:

Be it known that I, HENRY SMEETON, of Ottawa, in the county of La Salle and State of Illinois, have invented a new and Improved
5 Metallic Shingle, of which the following is a full, clear, and exact description.

My invention relates to metallic shingles for covering the roofs or sides of buildings, and has for its object to provide an inexpensive
10 and durable shingle of this character, which will be storm-proof and cannot be easily stripped off by winds, and may be applied by ordinary workmen with economy of time and labor.

15 The invention consists in certain novel features of construction of the shingles, and in their combination in series with clip-fastenings to form a roofing or siding, all as herein-after described and claimed.

20 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 showing a few shingles as applied to a roof. Fig. 2 is an enlarged transverse section taken on the line *xx*,
25 Fig. 1. Fig. 3 is an enlarged section at the horizontal joint of two shingles and taken on the line *yy*, Fig. 1; and Fig. 4 is a rear or under side view of one of the shingles partly broken away.

I will first describe one of the shingles in detail, and then explain the manner of laying them together on a roof.

35 The shingle is made of or from a single piece or plate, A, of metal, which, near its upper end, is bent or doubled over and outward and downward to form a double-thick lip, B, and provide a horizontal recess or pocket, C, between said lip and the main body of the plate,
40 as most clearly shown in Fig. 3 of the drawings. At its left-hand edge or side the plate is bent upward at *d*, thence outward at *d'*, thence downward at *d''*, and thence inward to
45 form a pocket, D, which incloses the locking-lips and retainers at the right-hand edge or side of the adjoining shingle, and to also form an inwardly-extending lip, E, which locks with the adjacent shingle, as presently explained.

50 The right-hand side of the shingle is doubled

upon itself near its edge, to form an inwardly-extending lip, F, and provide between the lip and the body of the plate a pocket, G, to receive the lip E on the next shingle to the right
55 hand and the extreme edge portion of the shingle beyond the lip F is bent upward at *h*, and then inward to form an overhanging lip or tongue, H, with which engage the hooked-end parts *i* of clips or cleats I, which are bent to lie
60 closely to the parts H *h* of the shingle, and project to the right hand sufficiently at *i'* to receive nails J, driven into the roofing-boards K, as most clearly shown in Figs. 1 and 2 of the
65 drawings.

At the lower edge or bottom of each shingle a hook or lip, L, is formed by bending the metal of the plate A over and upward, thereby allowing said lip L to be hooked into the
pockets C of the next lower shingles, while the
70 bent lips B on the lower shingles enter pockets M, formed between the lip L and the body of the shingle-plate, as most clearly shown in Fig. 3, said locking-lips L also being shown in dotted lines in Fig. 1 of the drawings.

Should the faces of the shingles be flat or plain, the lip L would extend unbroken clear across the shingles between the bends, forming the opposite side locking-lips thereof; but in the instance shown the shingles are formed
80 with an embossed or raised diamond-shaped ornament, the upper end, *a*, of which extends quite to the horizontally-ranging locking-lip B of the shingle; hence the lip L is cut away at the center at *l* to accommodate this part *a*
85 of the next lower shingle as the shingles are being laid on the roof with the joints of one course or layer of them in alignment with the centers of the shingles of the next lower course or layer, as will be understood from Fig. 1 of
90 the drawings.

The upper ends or edges of the shingles are preferably bent outward, to form flanges N between the engaging side lips of the shingles.

The shingles are laid in the following manner: Beginning at the left-hand side of a roof
95 or structure to be shingled, the first shingle will be fastened to the roofing-boards, in any proper way, at its left-hand edge, and at the center of its overlapped top portion by a nail,
100 O, driven into the boards, and its right-hand edge will be fastened by one or more clips, I,

preferably two of them, which are hooked at
 5 into or beneath the lip or flange H, and are
 nailed to the roofing-boards K at J, and
 whereby the shingle is held securely to the
 roof. The next shingle to the right hand will
 simply be hooked by its left-hand lip E under
 the lip F, or into the pocket G of the shingle
 first laid, and will be secured at its right-hand
 edge by clips I and at its upper edge by a nail,
 10 O, and so on a complete first course of shin-
 gles will or may be laid across or along the
 roof. In laying the next upper course of shin-
 gles their hooks or lips L will be caught into
 the pockets C and beneath the hook-lips B of
 15 the first-laid course and so as to break the
 joints of the courses, as above stated, and the
 successive shingles toward the right hand are
 hooked into each other at the side edges, and
 secured by clips I and nails J O, as above de-
 20 scribed, until the second course is finished,
 and so on, course after course, until the roof
 is completely covered by the metallic shin-
 gles, as will readily be understood.

It is obvious that each shingle is locked at
 25 all four of its sides, or at both edges and top
 and bottom, and in a manner to wholly exclude
 storms of any kind and give little or no hold
 for winds on the roofing, and allow the roofing
 to be trampled upon without injuring it or
 30 starting joints or seams and causing leaks, and
 as the shingles are not nailed through at the
 side edges, but are held by the clips I, hooking
 onto the lips H, which, with the lips F and
 the joint-pockets D, will yield somewhat to
 35 compensate for expansion or contraction of
 the metallic shingles or the roofing-boards to
 which they are fixed or held, tight joints at
 all four sides or edges of the shingles will be
 maintained and the shingles constitute a re-
 40 liable, inexpensive, and durable roofing.

Dependence may be placed entirely on the
 clips I to hold the shingles to the roofing-
 boards, and the nails O would then be dis-
 45 pensed with; but the use of both clips and
 nails, as above described, is preferred.

The shingles may be used for siding as well
 as for roofing buildings.

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

1. A metallic shingle, A, formed at one side
 edge with a pocket, D, and locking lip or
 flange E, and at its other side edge with lock-
 ing-lips F H, in combination with the clip I,
 substantially as set forth.

2. A metallic shingle formed at one side
 edge with a pocket, D, and locking lip or
 flange E, and at its other side edge with locking-
 lips F H, substantially as described, for the
 purposes set forth.

3. A metallic shingle formed at one side
 edge with a pocket, D, and locking-lip E,
 and at its other side edge with locking-lips F
 H, and formed near its upper part with a front
 pendent lip and at its lower part with a rear
 65 upbent lip, substantially as described, for the
 purposes set forth.

4. A metallic shingle made of one piece of
 metal bent to form a pendent locking-lip, B,
 at its upper part, and a rear upbent lip, L, at
 its lower part, and also bent to form a pocket,
 D, and locking-lip, E, at one side edge, and
 locking-lips F H at its other side edge, sub-
 70 stantially as described, for the purposes set
 forth.

5. Roofing or siding comprising series of
 metallic shingles, each formed with a pocket,
 D, and lip E at one side edge, and locking-
 lips F H at the other side edge, a front pend-
 ent lip, B, at its upper part, and a rear up-
 bent lip, L, at its lower part, said lips inter-
 locking at all four sides of the shingles, and
 clips I, hooked upon the lips H and fastened to
 the roofing-boards, substantially as described,
 80 for the purposes set forth.

HENRY SMEETON.

Witnesses:

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 H. H. COOLEY.