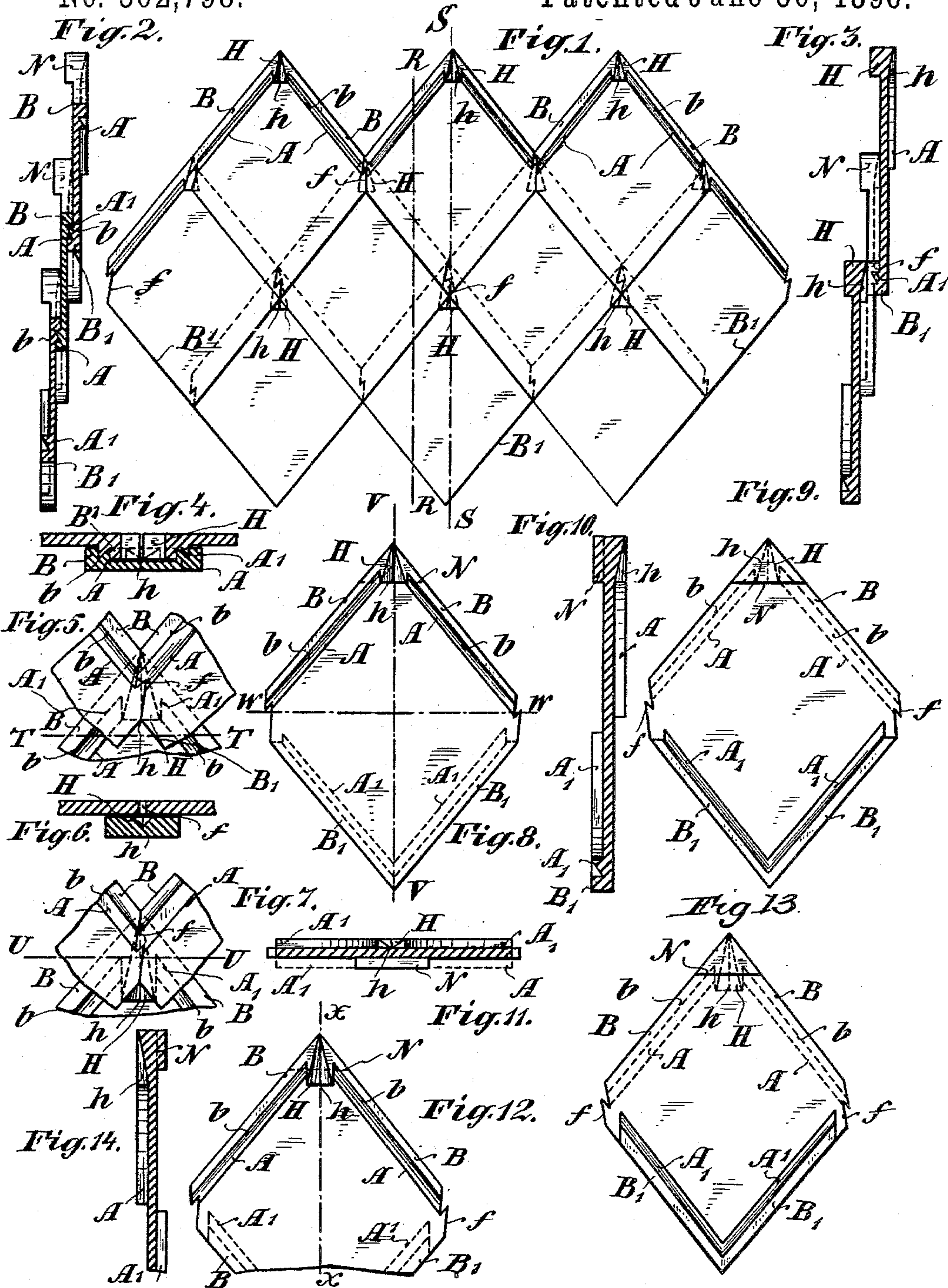


(No Model.)

H. BRÖCKER.  
TILE.

No. 562,798.

Patented June 30, 1896.



Witnesses

*John D. Milow*  
*George Aegler*

Inventor

*Heinrich Bröcker*  
by *Eustace Hopkins*  
Att'y



# UNITED STATES PATENT OFFICE.

HEINRICH BRÖCKER, OF LIMBACH, GERMANY, ASSIGNOR TO JULIUS THEODOR KÖHLER AND WIGARD WILLHAIN, OF SAME PLACE.

## TILE.

SPECIFICATION forming part of Letters Patent No. 562,798, dated June 30, 1896.

Application filed July 15, 1895. Serial No. 556,025. (No model.) Patented in Belgium March 1, 1895, No. 114,357; in England March 1, 1895, No. 4,438; in Switzerland March 1, 1895, No. 9,858; in France March 14, 1895, No. 247,399; in Hungary March 16, 1895, No. 3,079; in Austria March 31, 1895, No. 45/1,135; in Italy July 15, 1895, No. 75/237, and in Spain July 15, 1895, No. 17,499.

*To all whom it may concern:*

Be it known that I, HEINRICH BRÖCKER, a subject of the King of Saxony, and a resident of Limbach, in the Kingdom of Saxony, German Empire, have invented a certain new and useful Improved Tile, of which the following is a full, clear, and exact description, and for which I have obtained patents in Belgium, No. 114,357, dated March 1, 1895; in England, No. 4,438, dated March 1, 1895; in Switzerland, No. 9,858, dated March 1, 1895; in Hungary, No. 3,079, dated March 16, 1895; in Austria, No. 45/1,135, dated March 31, 1895; in Italy, No. 75/237, dated July 15, 1895; in Spain, No. 17,499, dated July 15, 1895, and in France, No. 247,399, dated March 14, 1895.

The present invention consists of an improved tile which is so constructed as to allow for the expansion and contraction due to atmospheric influences, without, however, giving rise to leaks, and which is also provided at the point of juncture of four tiles with a peculiarly-arranged channel, which diverts any water which may have found its way through the joints of the upper tiles, and conducts it to the upper surface of the under tile, as hereinafter more particularly described; and in order to render the present specification more easily intelligible reference is had to the accompanying drawings, in which similar letters denote similar parts throughout the several views.

Figure 1 is a plan view of several tiles arranged together; Fig. 2, a section on line R R of Fig. 1; Fig. 3, a section on line S S of Fig. 1; Fig. 4, a section on line T T of Fig. 5; Fig. 5, a part plan showing the point of juncture of three tiles, the upper tile being removed; Fig. 6, a section on line U U in Fig. 7; Fig. 7, a similar plan to that of Fig. 5, but showing a somewhat longer channel; Fig. 8, a plan view of a detached tile; Fig. 9, a plan view seen from the opposite side; Fig. 10, a section on line V V of Fig. 8; Fig. 11, a section on line W W of Fig. 8; Fig. 12, a part plan of a tile having a somewhat longer channel at the upper end; Fig. 13, a plan of the detached

tile of Fig. 12, seen from the opposite side; and Fig. 14, a section on line X X of Fig. 12.

The tile is made in the form of a diamond and is provided on its upper surface with raised ledges A and B along two adjacent sides, said ledges forming a groove *b* between them and having one of their lateral surfaces right angular to the plane of the tile and the other slanting, as may be seen at Figs. 2, 3, and 10. The opposite two adjacent sides of the reverse side of the said tile are provided with corresponding ledges A' and B', which, when the tiles are arranged together, grip into and over the upper ledges A and B in the manner clearly shown at Figs. 2 and 3. At the upper point of the diamond a raised triangular portion N is provided at the rear of the tile, and the front part is raised, as shown at H, Fig. 8, gradually from the surface of the tile to the height of the ledges A and B at the corner, thus forming a channel *h*, commencing at the top corner of the tile and opening out broader and deeper and finishing at about the point where the inner sides of the ledges A and B meet the said channel. This channel *h* may, however, be prolonged somewhat, as shown at Figs. 12 and 13.

In placing the tiles together the ledges A' and B' lie above and engage in the ledges A and B in the manner shown in Figs. 2 and 3, and this allows for the expansion and contraction of the tiles without, however, opening a crevice as heretofore, since the slanting surfaces of the ledges slide one on the other. At the point of juncture of four tiles, the dovetails *f* fit into each other and lie over and on the channel *h*, formed at the top of each tile, so that any water which might happen to pass through the joint formed by the dovetails *f* will fall into the channel *h* and pass out onto the upper surface of the undermost tile, instead of running into the grooves formed by the ledges A, B, A', and B'. This arrangement will be clearly seen at Figs 5 and 7, while the shape of the channel *h* is well illustrated in the section shown by Fig. 11.

I claim as my invention—

A tile having on two adjacent sides of its



upper surface ledges A and B forming between them a channel *b*, said channel having one vertical and one slanting wall as specified, corresponding ledges at the opposite adjacent sides of the reverse side of the tile, to  
5 engage over and in said ledges A and B, and a channel *h* at the top corner of each tile, said channel commencing at a point lying in the plane of the upper part of the ledges A and  
10 B, and opening out and widening onto the

upper surface of the said tile in the manner and for the purpose substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 15 two subscribing witnesses.

HEINRICH BRÖCKER.

Witnesses:

EUGEN E. NABEL,  
GAETANO AMADEE.