No. 799,259. PATENTED SEPT. 12, 1905.

J. H. PERRIN.

INTERLOCKING TILE.

APPLICATION FILED OCT. 29, 1904.

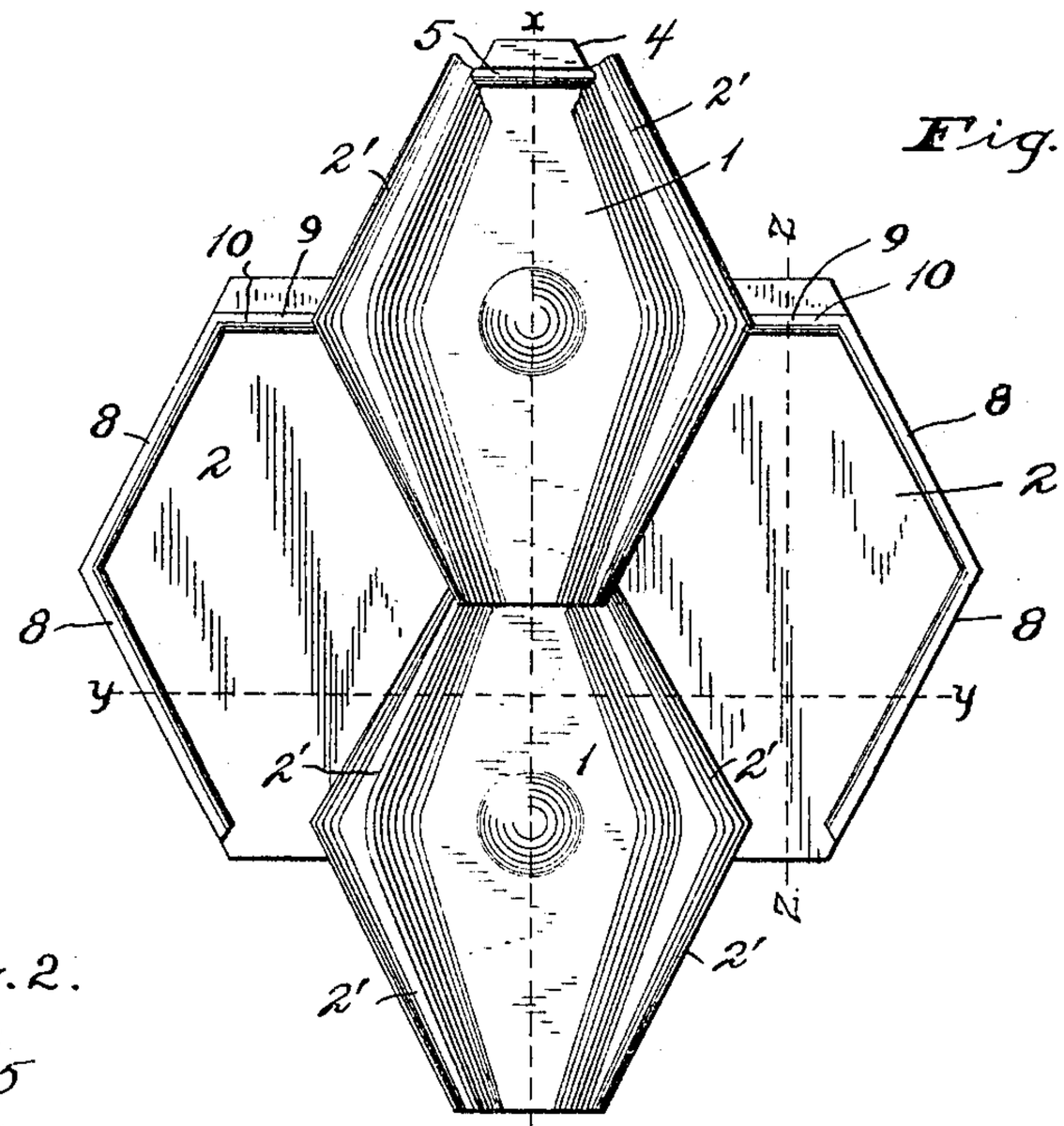
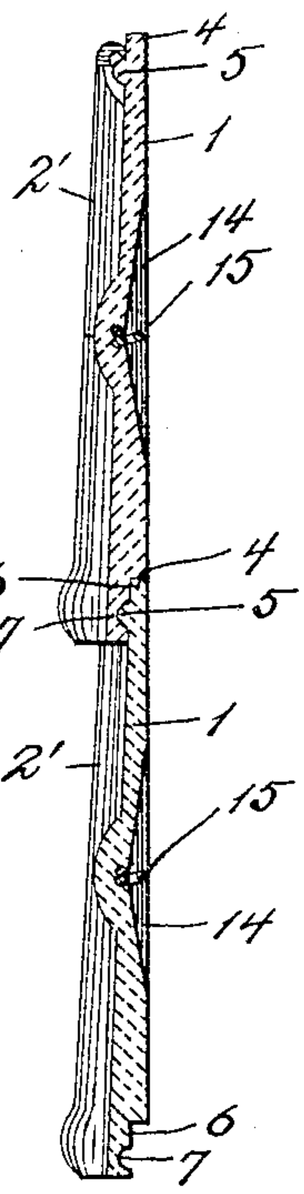


Fig. 1.

Fig. 2.



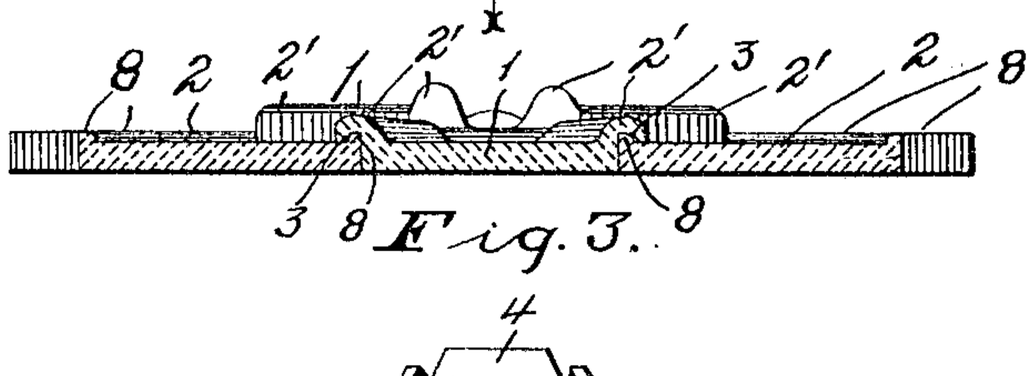


Fig. 3.

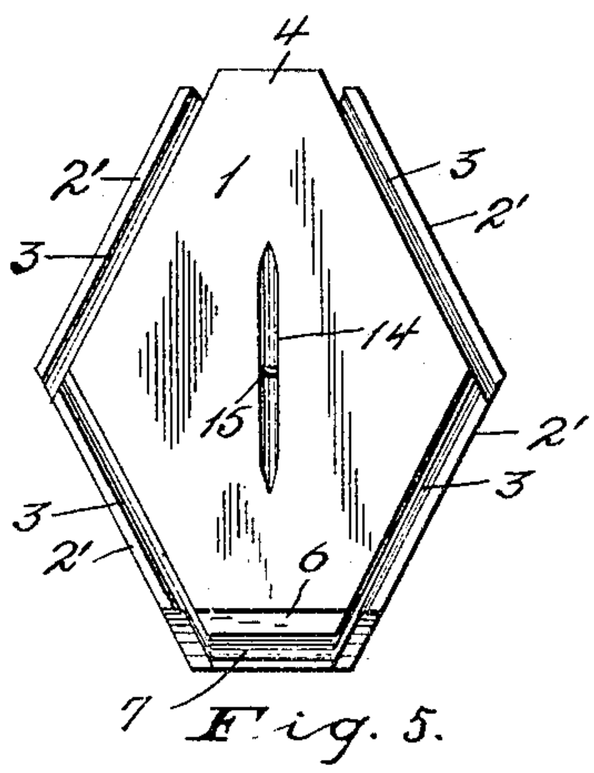
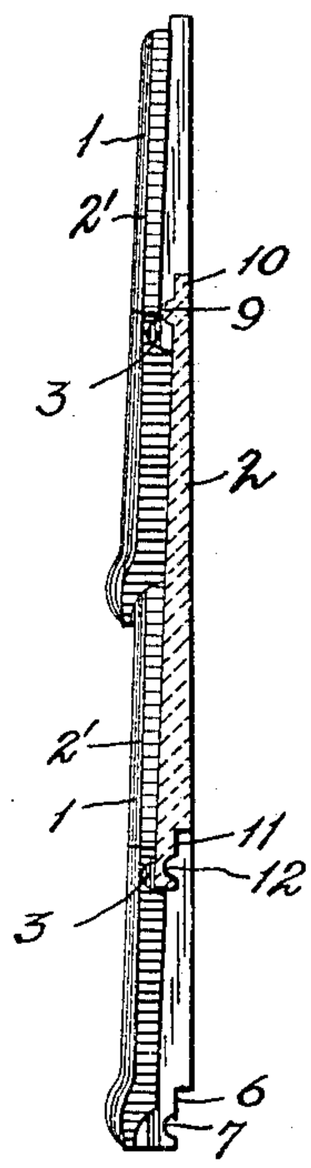


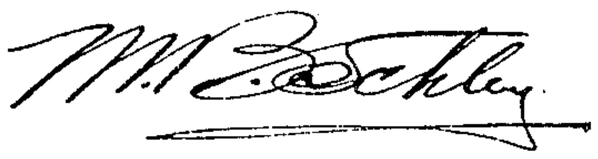
Fig. 5.

Fig. 4.



WITNESSES:

C. Stoughton.



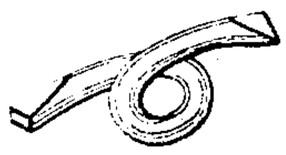


Fig. 6.

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UNITED STATES PATENT OFFICE.

JAMES H. PERRIN, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO JACOB F. KNEPPER, OF MARION, INDIANA.

INTERLOCKING TILES.

No. 799,259. Specification of Letters Patent. Patented Sept. 12, 1905.

Application filed October 29, 1904. Serial No. 230,467.

To all whom it may concern:

Be it known that I, JAMES H. PERRIN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Interlocking Tiles, of which the following is a specification.

My invention relates to a new and useful improvement in interlocking tiles.

The object of the invention is to provide interlocking tiles formed of a suitable plastic material so constructed and arranged when they are placed in position that their interlocking portions will form weather-tight joints.

Another feature lies in tiles constructed in upper and lower sets so formed and shaped as to have their lower faces lying in the same plane, and thus forming a continuous contact with the roof or other structure upon which they are placed.

Finally, the object of the invention is to provide tiles of the character described that will be strong, durable, and efficient in their purposes and simple and comparatively inexpensive to construct and apply.

With the above and other objects in view the invention consists of the novel details of construction and operation, a preferable embodiment of which is described in the specification and illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of a number of the tiles in position. Fig. 2 is a longitudinal vertical sectional view taken on the line *x x* of Fig. 1. Fig. 3 is a transverse vertical sectional view taken on the line *y y* of Fig. 1. Fig. 4 is a longitudinal vertical sectional view taken on the line *z z* of Fig. 1 and showing the tiles of the upper set in elevation. Fig. 5 is an under side view of one of the upper tiles, and Fig. 6 is a perspective view of one of the binding-staples which is secured in each of the upper tiles.

In the drawings the numeral 1 designates the upper tiles, while the numeral 2 designates the lower tiles. The tiles may be made of any material, form, and dimensions. However, for the purposes of illustration I have shown my tiles constructed in the usual diamond shape. The tiles 1 of the upper set are each formed with raised and rounded sides 2′, a portion of which overhang the sides of the tile-body. The overhanging portions are formed on their under sides with grooves 3 and terminate short of the lower surface of the tile 1, as shown in Fig. 3, for the purpose hereinafter described. Each tile 1 is formed with a tongue portion 4 at one end, having a transverse locking-rib 5 upon its upper surface, and at its other end and under side with a shouldered cut-away portion 6, formed with a transverse groove 7. It is therefore seen that when several of the tiles are placed together the tongue and rib 5 of one tile will engage in the shouldered recess 6 and the groove 7 of the next tile, thus locking the tiles together. The lower tiles 2 are formed along their sides and across one end with upwardly-projecting ribs 8 and 9, the ribs 8 being adapted to engage in the grooves 3 of the upper tiles 1 when the tiles are assembled.

It is to be observed that the lower tiles are of such thickness as to fit snugly under the overhanging portions of the sides 2 of the upper tile, thus lying flush with the under surfaces of the tiles 1 and forming tight joints therewith, as is clearly set forth in Fig. 3. The lower tiles 2 are also formed with tongue portions 10, which coact with shouldered cut-away portions 11, formed on the opposite end and lower side of the said tiles. The tile is provided with a transverse groove 12 in the cut-away portion 11, which is adapted to receive the locking-rib 9, which extends across the end of the next adjacent tile.

It is apparent from the foregoing that the tiles are held against displacement from any direction in a horizontal plane and that by allowing the upper tiles 1 and the lower tiles 2 to lie in the same plane a continuous and solid covering is provided. In the under face of each of the upper tiles 1 I provide a longitudinal groove 14, transversely across which extends a metallic staple 15, which is embedded in the tile when the same is molded or formed. From this it is apparent that a suitable wire may be passed along the groove through the staple 6, securing the said tiles in position on the roof or other structure upon which they are supported.

It is to be observed that the tiles are slightly tapered lengthwise to accommodate the lock-joints formed at the ends of the tiles. It is wholly within the scope of my invention to ornament the tiles in various manners, includ-

ing coloring of the same, which may be done by various methods, according to the material from which the tile is formed.

As hereinbefore stated, one of the essential and important features of my invention is the arrangement and shape of the tiles whereby both the upper and lower tiles have their under faces terminating flush with each other or lying in the same plane, thus forming a continuous and unbroken contact with the roof or other structure on which they are supported. It is obviously apparent that a very compact and efficacious covering is had and there is less chance of the tiles becoming disengaged from their interlocking positions by shaping them and arranging the same as I have herein set forth.

I do not wish to limit myself to the exact details of construction herein set forth, as I may make various changes in the same without departing from the spirit of my invention.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A roof structure, comprising upper tiles and lower tiles provided with interlocking portions and having their under surfaces lying in the same plane.

2. A roof structure, comprising lower tiles formed with upwardly-extending projections and having interlocking engagement with each other, and upper tiles provided with overhanging portions, said portions having interlocking engagement with the upwardly-extending projections of the lower tiles, and said upper tiles having interlocking engagement with each other.

3. In a roof structure, lower tiles having upwardly-extending ribs and interlocking engagement one with the other, and upper tiles having overhanging grooved sides into which the said ribs of the lower tiles are adapted to engage so as to allow the under surfaces of the upper tiles to lie in the same plane as the under surfaces of the lower tiles, said upper tiles having interlocking engagement with each other.

4. An improved tile having overhanging grooved sides, the tile being formed at one end with a locking-tongue and at the opposite end with an undercut locking-recess.

5. An improved tile having upwardly-projecting locking-ribs along its sides and formed at one end with a locking-tongue and at the opposite end with a locking-recess, the engaging face of the locking-tongue being of such contour as to register with the engaging face of the locking-recess when two of the said tiles are placed together.

6. A roof structure, comprising upper and lower sets of tapering interlocking tiles so shaped and arranged as to have their under surfaces lying in the same plane.

JAMES H. PERRIN.

In presence of—
C. C. SHEPHERD,
M. B. SCHLEY.