G. P. HUGHES & J. L. ARMSTRONG.

INTERLOCKING ROOFING TILE.

APPLICATION FILED MAR. 6, 1917.

1,226,888. Patented May 22, 1917.

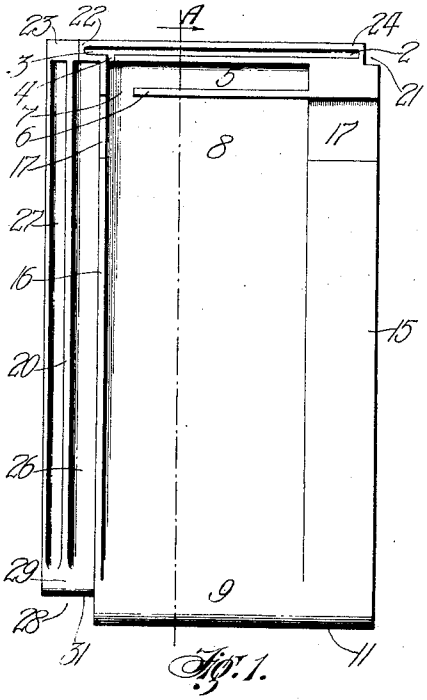

Fig. 1.

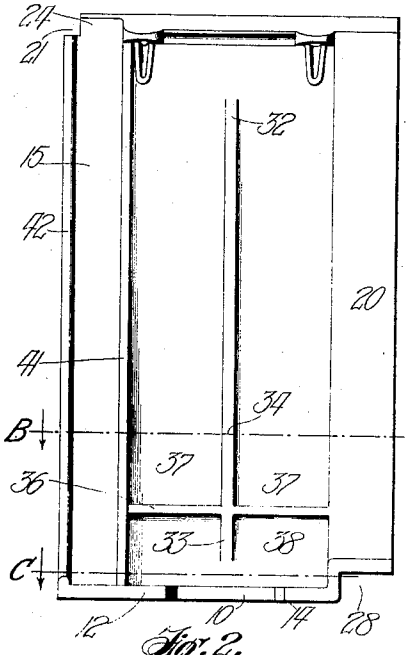

Fig. 2.

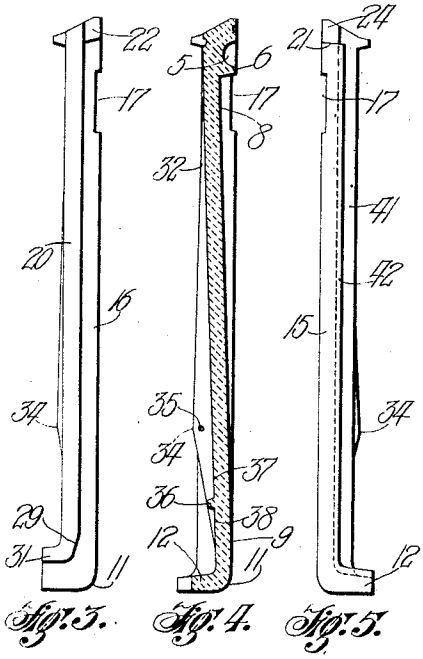

Fig. 3.

Fig. 4.

Fig. 5.

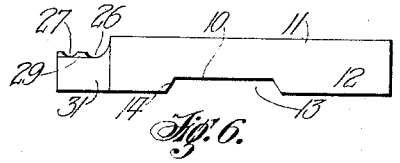

Fig. 6.

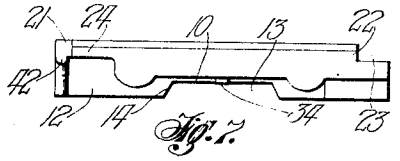

Fig. 7.

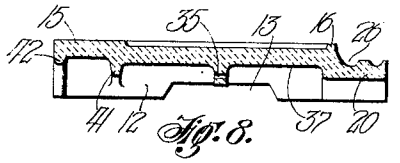

Fig. 8.

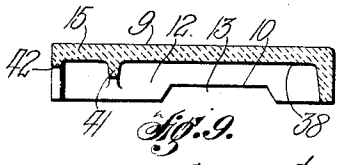

Fig. 9.

Inventors:
Godfrey P. Hughes and
John L. Armstrong
by Quid Baumbycke

UNITED STATES PATENT OFFICE.

GODFREY P. HUGHES, OF MELBOURNE, AND JOHN LESLIE ARMSTRONG, OF CAULFIELD, MELBOURNE, VICTORIA, AUSTRALIA.

INTERLOCKING ROOFING-TILE.

1,226,888. Specification of Letters Patent. Patented May 22, 1917.

Application filed March 6, 1917. Serial No. 152,859.

To all whom it may concern:

Be it known that we, GODFREY PENTERFYN HUGHES, a subject of the King of Great Britain and Ireland, and a resident of the city of St. Kilda, a suburb of the city of Melbourne, in the county of Bourke, State of Victoria, Commonwealth of Australia, (whose post-office address is 5 Avoca avenue, in the said city of St. Kilda,) and JOHN LESLIE ARMSTRONG, a subject of the King of Great Britain and Ireland, and a resident of the postal division of East Caulfield, in the city of Caulfield, a suburb of the city of Melbourne, in the county of Bourke, State of Victoria, Commonwealth of Australia, (whose post-office address is 108 Tooronga road, in the said postal division of East Caulfield,) have invented a certain new and useful Improved Interlocking Roofing-Tile, of which the following is a specification.

This invention relates to roofing tiles of the kind which are arranged to interlock and be retained in such a position by tie wires which are fastened to the roof supports.

The object of the invention is to produce an attractive tile of this character which may be made of terra cotta, cement, clay, glass, metal or other suitable material and which will be cheap to manufacture and may be effectively interlocked. The nosing of a tile made in accordance with the invention presents a plain, straight, horizontal line uninterrupted by any ribs or channels. Provision is made whereby excess of water due to phenomenal rain fall or the like may escape freely at the lower overlapping ends of each tile thereby preventing leakage of the roof through banking up of water.

By the invention each side of each tile is capable of being joined in parallel to the adjacent tile although the upper face of the tile is set in a different plane.

Referring to the drawings which form a part of this specification

Figure 1 is a view of the outer surface of the tile.

Fig. 2 is a view of the inner or reverse surface of the same.

Fig. 3 is a side elevation of Fig. 1 looking at it from the left.

Fig. 4 is a section on line A, Fig. 1.

Fig. 5 is a side elevation of Fig. 1 looking at it from the right.

Fig. 6 is a view looking at the bottom end of the tile.

Fig. 7 is a view looking at the top end of the same.

Fig. 8 is a section on line B, Fig. 2.

Fig. 9 is a section on line C, Fig. 2.

Describing what is to be seen in Fig. 1 on the outer surface of the tile it will be perceived that there is an upper lateral minor drain groove having a right end 2 and a left end 3. This drains through a minor longitudinal drain groove 4 into a major lateral drain groove 5 having a ridge 6 which forms the lower wall of the said major lateral drain groove. The major lateral drain groove through a major longitudinal drain groove 7 drains into the upper sunken or splayed end 8 of a main drain face. This face inclines upwardly toward the lower surface 9 where it is flush with the nosing hereinafter referred to. It forms an inclined or splayed unobstructed runaway for rain waters.

The lower edge or nosing of the tile is rounded as at 11. This nosing is plain and uninterrupted by any ridging or depression and forms a straight and attractive horizontal line along the bottom of each course of tiles. The nosing is provided with a downturned lip 12 which engages below the ridge 6 of the two adjoining tiles and serves to lock the tiles longitudinally. Portion of the lip 12 is removed to form a recess 13 having an upper face 10 and side walls 14.

Along the right hand side of each tile is an overlap 15 which passes over the underlap 20 of the adjoining tile. The outer edge of the overlap adjoins the outer or left hand edge of the rib 16 of the adjoining tile. The overlap 15 and rib 16 are recessed at 17. The recess 13 in the downturned lip 12 bridges the overlap 15 and the rib 16 of the adjoining tile, the upper face 10 resting in the recesses 17 and the side walls 14 bearing against the inside edges of the overlap 15 and rib 16.

At the right hand top corner of the overlap is a recess 21 with which engages a projection 22 protruding from the left hand side of the adjoining tile.

On the left hand top corner of the tile a portion is cut away as at 23 to accommodate

a lapping portion 24 on the upper right hand edge of the adjoining tile.

The underlap 20 is provided with an inner draining groove 26 into which descends a longitudinal lip hereinafter referred to. Outside the inner groove 26 is an outer draining groove 27. The underlap is shorter than the tile and forms a step 28 at the bottom of the same. Its lower end is furnished with a depression or runaway 29. From this the longitudinal ribs or walls forming the two grooves 26 and 27 are removed. There is thereby formed a water race from which the rain entering between the longitudinal joints, that is, between the outer edges of the overlap 15 and rib 16 of the tiles, escapes freely and prevents banking up of the water. Below the runaway 29 is a lip 31.

Describing what is to be seen on the reverse or inside of the tile as perceived in Fig. 2 it will be observed that there is in the center longitudinally of the tile a central reinforcing rib, the width and length of which depend upon conditions. Its upper end 32 and lower end 33 are flush with the inside surface of the tile. Between the two ends the rib is outset to form an obtuse angle near the apex 34 of which is a hole 35. Through this hole a wire is threaded by which the tile is secured to the battens of the roof. At the lower end of the tile is a splayed or depressed surface 37 across which are lateral ribs 36. Between the lateral ribs and the lip 12 are splayed or depressed compartments 38.

Between the splayed or depressed surface 37 and the overlap 15 is a longitudinal reinforcing rib 41. From the underneath surface of the overlap protrudes a longitudinal lip 42 which enters into the inner draining groove 26 in the underlap of the adjoining tile and serves to lock the tiles together laterally.

The water passing over the nosing 11 at the bottom of a tile falls down upon the sunken or splayed face 8 and passes without hindrance down the same onto the next tile. Any water entering between the longitudinal joints of the tiles passes into the inner draining groove 26 and descending the same finds a ready outlet past the depression 29.

Having now described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. An improved interlocking roofing tile, having a plain uninterrupted upper face splayed or inclined upwardly from the top portion to the bottom of the tile where it terminates flush with a plain uninterrupted horizontal nosing, in combination with means for interlocking the tile to adjacent tiles.

2. An improved interlocking roofing tile, having a plain uninterrupted upper face splayed or inclined upwardly from the top portion to the bottom of the tile where it terminates flush with a plain uninterrupted horizontal nosing and a depression at the lower end of the underlapping portion of the tile to form a runaway for surplus rain water entering between the tiles, in combination with means for interlocking the tile to adjacent tiles.

3. An improved interlocking roofing tile, having a plain uninterrupted upper face splayed or inclined upwardly from the top portion to the bottom of the tile where it terminates flush with a plain uninterrupted horizontal nosing, and a longitudinal reinforcing rib on the under face of the tile provided with means to accommodate tie wires, in combination with means for interlocking the tile to adjacent tiles.

4. An improved interlocking roofing tile, having a plain uninterrupted upper face splayed or inclined upwardly from the top portion to the bottom of the tile where it terminates flush with a plain uninterrupted horizontal nosing, the underneath face of the tile being splayed parallel with the upper face, the said underneath face having a central longitudinal reinforcing rib, the upper and lower ends of which are flush with the lower face of the tile and an outset to said longitudinal reinforcing rib forming an obtuse angle, said outset being provided with means to accommodate tie wires in combination with means for interlocking the tile to adjacent tiles.

In testimony whereof we affix our signatures.

G. P. HUGHES.
J. LESLIE ARMSTRONG.