

H. M. REYNOLDS.
ROOFING SHINGLE.
APPLICATION FILED JULY 16, 1913.

1,108,236.

Patented Aug. 25, 1914.

2 SHEETS—SHEET 1.

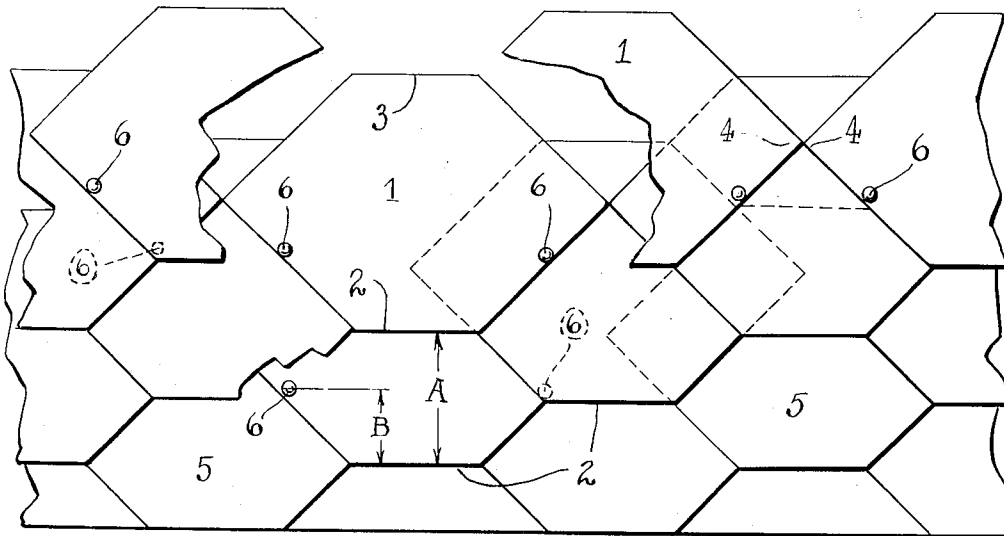


Fig. 1.

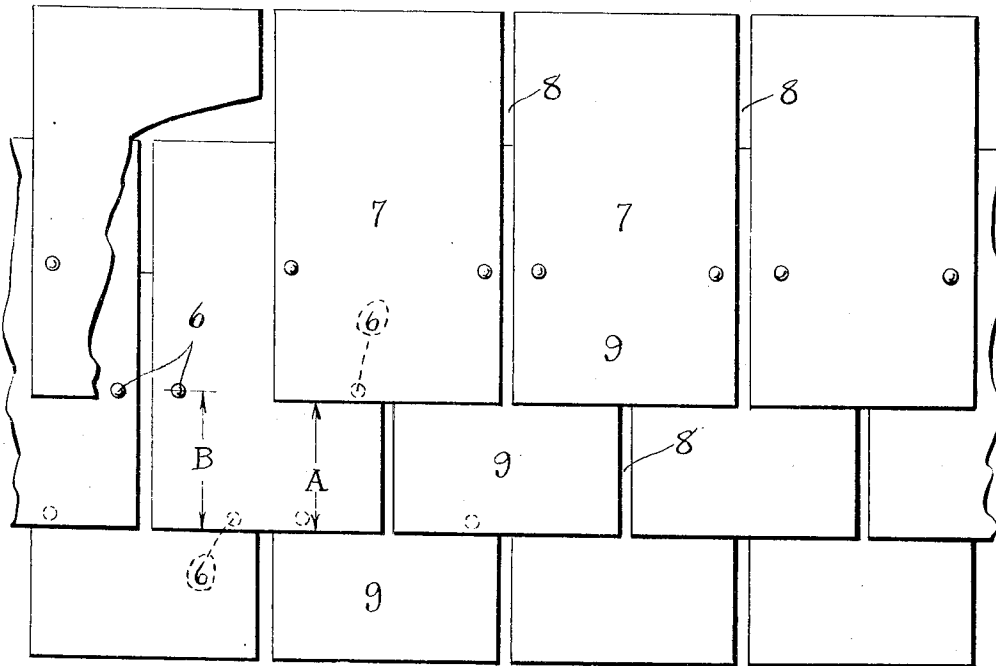


Fig. 2.

WITNESSES

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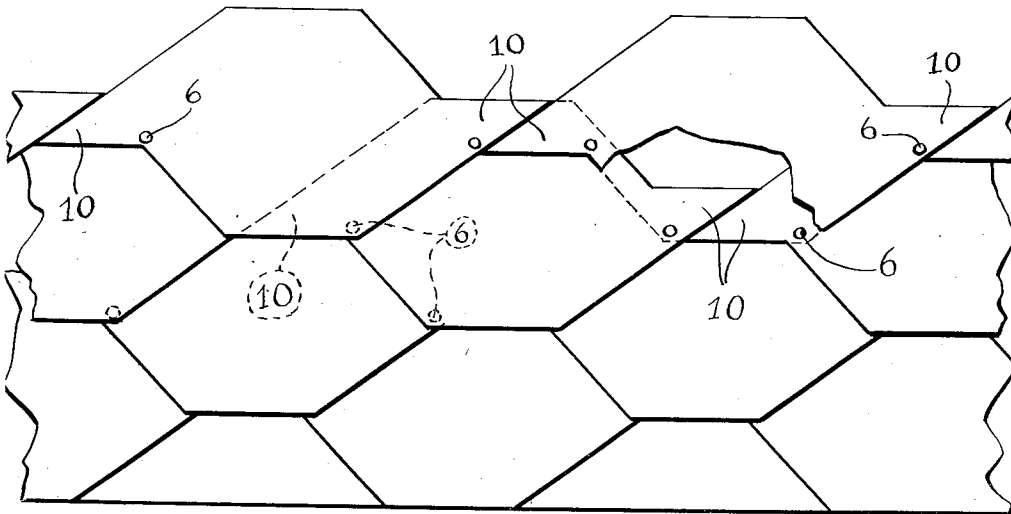


Fig. 3.

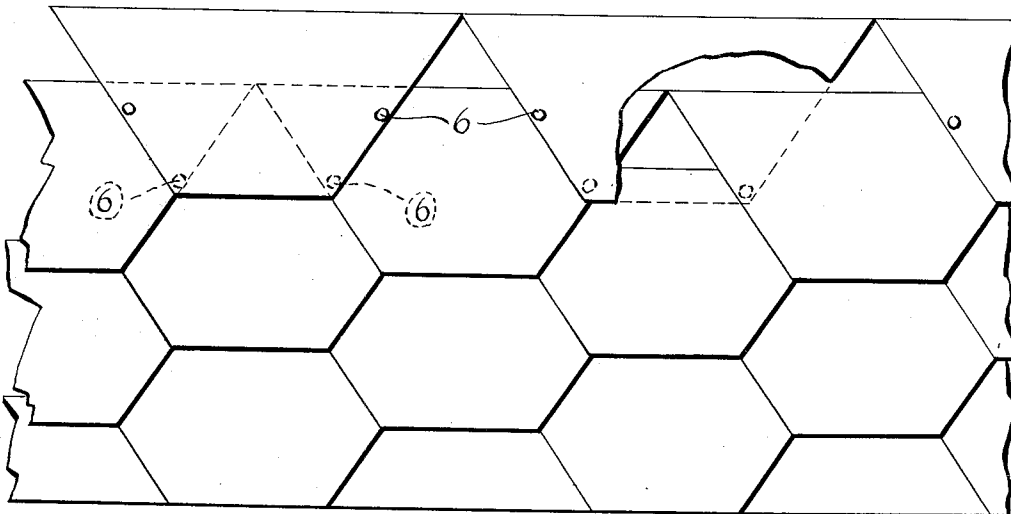


Fig. 4.

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HARRY M. REYNOLDS, OF GRAND RAPIDS, MICHIGAN.

ROOFING-SHINGLE.

1,108,236.

Specification of Letters Patent.

Patented Aug. 25, 1914.

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To all whom it may concern:

Be it known that I, HARRY M. REYNOLDS, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Roofing-Shingles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in roofing shingles.

The ordinary rectangular shingles as usually laid tend to warp up and shrink, thus permitting rain to get under and between the same and to permit leakage of air and rain through the roof.

The object of the invention is to provide a shingle of such shape and so secured that when laid upon a roof it will avoid the foregoing objections and to this end the nails by which it is attached will be located nearer the loose edge of the shingle than is possible with the ordinary form, and also the exposed portions of the shingle provided with obtuse angles thus stiffening that portion and preventing warping of the same; to provide shingles which will not form an opening between adjacent edges of the same and permit the weather to beat through the roof; to provide shingles which when laid will present a pleasing appearance, and to provide the same with certain new and useful features hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which:

Figure 1 is a plan view of several courses of the preferred form of my improved shingles laid in operative position with parts broken away; Fig. 2 is a plan view of several courses of the ordinary shingles shown to illustrate, by comparison, the advantages of the improved shingle, and Figs. 3 and 4 are plan views of several courses of modified forms of my improved shingles.

Like numbers refer to like parts in all of the figures.

1 represents the improved shingle which is preferably formed hexagonal as shown in Fig. 1; these shingles are laid in courses with two of their opposite parallel edges 2 and 3 extending longitudinally of the course and thus each shingle will present an angle 4 to a corresponding angle 4 of the shingle ad-

jacent it, and these two angles are preferably brought in contact. Each course of shingles overlaps the course below substantially as shown leaving a weather exposure 5 on each shingle substantially hexagonal in shape. The dimension "A" represents the width of this weather exposure. The shingles in each consecutive course are so laid that the lower edge of the shingles of each course will overlap and cover two adjacent corners of the shingles in the course below, the lower edge of the shingles in each upper course being located approximately on a horizontal line drawn through the axis of the exposed portion of the shingles in the course below. The nails 6, by which the shingles are attached can thus be located beneath the lower angle of the overlapping shingle, and it is thus possible to place said nails substantially opposite the middle of the exposed portion and much nearer the lower angles thereof.

The dimension "B" on the drawing represents the vertical distance between the nail and the lower edge of the shingle which is materially less than with rectangular shingles having the same length of exposure.

A comparison between this improved shingle and the old type as illustrated in Fig. 2 will illustrate the advantages of the improved type. The ordinary shingle 7 as shown in Fig. 2 must be spaced apart as at 8 to permit the shingles to expand and thus an aperture is left between the shingles through which the weather may beat, which sometimes cause the roof to leak. In the improved shingle the points 4 may be brought in contact and as the engaging surfaces of these points are very small the shingle may expand and the points will slide by each other to permit such expansion. In the old form of shingle 7 the weather exposure 9 is terminated by the lower edge of the overlapping upper course of shingles and the nails 6 must be placed beneath this overlapping lower edge. As this edge is straight and does not overlap any of the exposed portion of the shingle below, it is necessary to place the nail 6 more than the full width of the exposed portion from the edge of the shingle.

For the sake of comparison in the drawing, the width of the exposed portion of the shingles in both the preferred improved style shown in Fig. 1 and old style in Fig. 2 are shown equal. It will be noted that the

nail may be placed much closer the lower edge of the shingle in the improved style and still be covered than is possible in the old style as indicated by the dimension "B".

- 5 The shape of the exposed portion of the shingle in the improved style being hexagonal adds attractiveness to the design.

The desired result may be produced by using shingles of other configuration such as those shown in Figs. 3 and 4. The shingle shown in Fig. 3 has a substantially hexagonal body with the addition of the pointed projections 10 one at each end of the shingle. One of the edges of each of these projections 15 is a continuation of one of the edges of the body of the shingle while the other edge extends longitudinal of the course when the shingle is laid and the longitudinal edges on the respective projections of each shingle 20 are located on opposite sides of the longitudinal axis of the shingle and face upward and downward respectively.

In operative position the projections 10 on adjacent shingles extend past each other 25 and the inclined edges are in engagement. The downwardly facing longitudinal edge of a projection on each shingle lies directly beneath and flush with the lower edge of the body of a shingle in a superposed upper 30 course and the projections form a filler under such upper shingle to prevent the occurrence of an opening beneath its lower edge which would fill with ice or snow in winter or permit the wind to get under and tend to 35 tear the shingle loose.

The style shown in Fig. 4 is a quadrilateral figure having two opposite sides parallel and extending longitudinally of the course while the other two sides converge downwardly and thus form obtuse angles where they meet the lower edge. The adjacent upper corners of the consecutive shingles in each course are in contact and the lower obtuse angles overlap the exposed portions 45 of the shingles in the next course below and cover the fastening nails therein.

This shingle may be cut without waste

from a straight strip of material by laying them out end to end thereon with each alternate shingle reversed in position. Various 50 other shapes of shingles may be utilized to produce the same result as these shown and consequently I do not care to limit myself to either the preferred style or the modifications thereof herein shown and described. 55

What I claim is:

1. Shingles having obtuse lower angles and hexagonal exposed portions, and fastenings for each course located beneath the lower angles of the next course above and 60 substantially on a horizontal line extending through the middle of the exposed portion of the shingles.

2. Shingles having obtuse lower angles and hexagonal exposed portions, said exposed portions having opposed horizontal margins and horizontally opposite angles, and fastenings for said shingles near said angles and covered by the lower angles of 70 the shingles next above.

3. Shingles each having an outline of hexagonal form, and laid in courses with the opposite angles adjacent and the lower side overlapping the next lower course to substantially opposite the middle of the exposed 75 portion thereof and the lower angles covering the securing nails of said lower course.

4. Shingles each having an outline of hexagonal form and laid in courses with two sides of each shingle horizontal, and its opposite angles in line, fastening nails inserted opposite the ends of the exposed portion of each shingle and beneath the lower angles of the next course above, each course overlapping the course below to near the middle of 85 the exposed portion thereof and covering the fastenings for the same.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY M. REYNOLDS.

Witnesses:

HAROLD O. VAN ANTWERP,
LUTHER V. MOULTON.