

May 6, 1952

G. C. TURMAN  
INTERLOCKING SHINGLE

2,595,821

Filed Aug. 20, 1947

2 SHEETS—SHEET 1

*Fig. 1.*

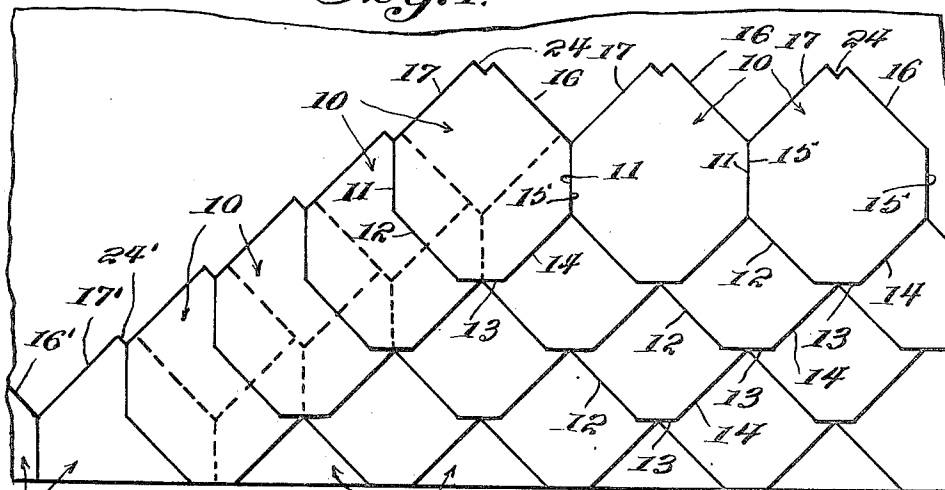


*Fig. 2.*

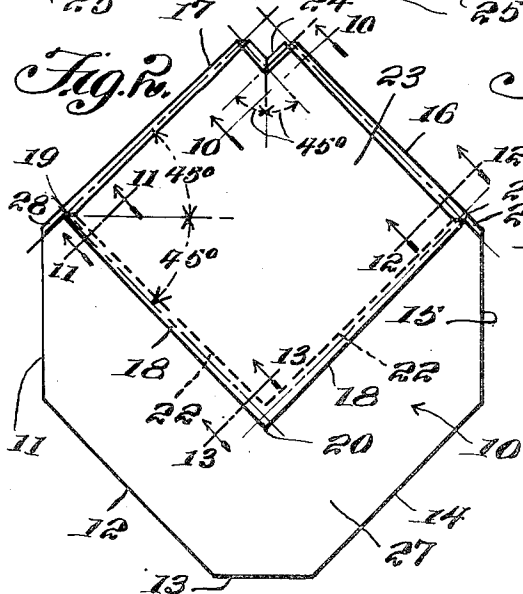


*Fig. 3.*

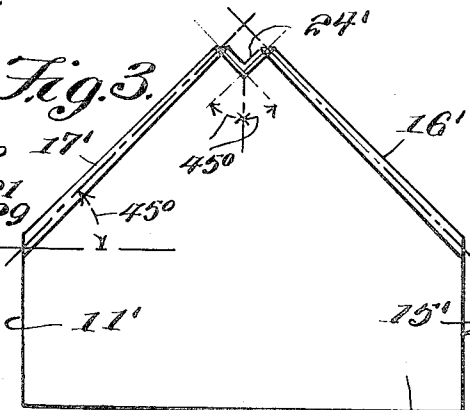


*Fig. 14.*

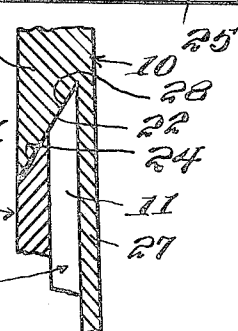


*Fig. 10.*



*Fig. 11.*



*Fig. 12.*



*Fig. 13.*



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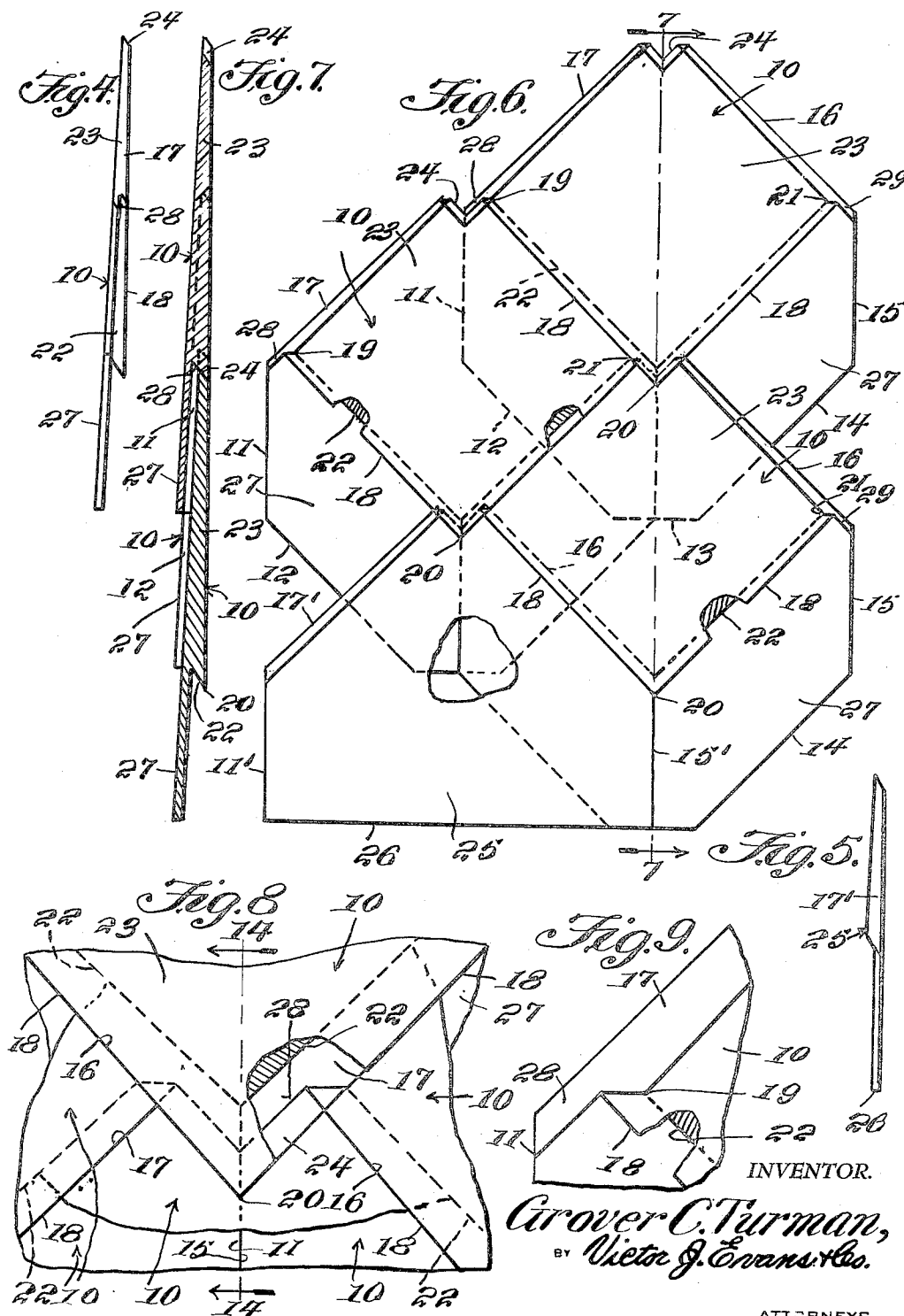
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2 SHEETS—SHEET 2



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## UNITED STATES PATENT OFFICE

2,595,821

## INTERLOCKING SHINGLE

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Application August 20, 1947, Serial No. 769,564

2 Claims. (Cl. 108—8)

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This invention relates to new and useful improvements in building shingles, such as may be used for roofing or siding, and is more particularly an improvement over my Patent 2,421,266 in interlocking shingle.

An important object of the present invention is to provide a shingle having a special interlocking feature which will securely lock the bottom or top of each row of shingles over the entire roof surface to which the shingles are applied so that every shingle is securely locked to every other shingle on the roof surface. The particular interlocking feature provides a rigid and self-sustaining feature that is not inherent to the shingle covered by my former patent.

With the above and other objects and advantages in view, the invention consists of the novel details of construction, arrangement and combination of parts more fully hereinafter described, claimed and illustrated in the accompanying drawings in which:

Figure 1 is a fragmentary top plan view of a roof constructed with the improved shingle embodying the invention;

Figure 2 is a bottom plan view of one of the shingles, per se;

Figure 3 is a bottom plan view of a starting shingle;

Figure 4 is an edge elevational view of a shingle;

Figure 5 is an end elevational view of a starting shingle;

Figure 6 is a fragmentary bottom plan of a shingle assembly as in Figure 1;

Figure 7 is a vertical sectional view on line 7—7 of Figure 6;

Figure 8 is a detailed fragmentary bottom plan view partly broken away of a shingle assembly at the lower corner of one of the shingles;

Figure 9 is a detailed fragmentary view partly broken away of one end of a shingle;

Figure 10 is a sectional view on the line 10—10 of Figure 2;

Figure 11 is a sectional view on the line 11—11 of Figure 2;

Figure 12 is a sectional view on the line 12—12 of Figure 2;

Figure 13 is a sectional view on the line 13—13 of Figure 2 and

Figure 14 is a sectional view on the line 14—14 of Figure 8.

Referring more in detail to the drawings, it can be seen from Figure 2 that the shingle 10 is of a shape half hexagonal and half triangular, which is constructed of a sheet of any suitable

material having the sides 11, 12, 13, 14, 15, forming the hexagonal half of the shingle and sides 16 and 17 forming the triangular half of the shingle.

The upper portion of the shingle 10 is somewhat thicker than the lower portion, that is, the upper portion which is defined by the undercut shoulder 18 extending from a point 19 on the side edge 17 to a point 20 along the center line of the shingle below the lower ends of the side edges 11 and 15 and back to a point 21 on the side edge 15. This right angularly formed shoulder 19, 20, 21 has an undercut bevel as previously stated, denoted by the reference character 22, Figure 11, and is approximately bevelled at an angle of 45 degrees.

The upper portion 23 of the shingle gradually tapers upwardly to the V-shaped notched or incut end 24 which is bevelled as is the undercut 22, but at an angle of 46 degrees.

In Figure 3, a starting shingle 25 is shown which is provided with the corresponding sides 11', 17', 16' and 15', but this shingle is bisected by the line 26 joining the lower ends of the sides 11' and 15'.

The shingle 10, along the sides 17 and 16, is similarly bevelled as the end 24, at an angle of 45 degrees, and the shingle 25 has the sides 17' and 16' similarly bevelled as is the incut end 24' at an angle of 46 degrees.

The bevelled edges of the sides 16, 16' and 17, 17' are bevelled at a 46° angle on a line drawn through the approximate center of the bevel, so that as the thickness of the shingle decreases or increases, the angle will be as shown in Figures 10 and 12. The undercut 22, being cut at 45° would appear as in Figures 11 and 13. Thus the 46° angle of the bevel is fit within the 45 degree undercut.

When the row of starting shingles 25 is applied first, the succeeding shingles 10, disposed over the row of starting shingles, will have the point 20 of the shoulder 18 seated in the undercut end 24' of the shingle 25, with the reduced portion 27 of the shingle 10 overlying the upper portion of the shingle 25. Thus the space behind the shingles will be eliminated.

At the points 19 and 21 on the sides 16 and 17, the bevel will overrun these points to provide shoulders 28 and 29 respectively, so that when the point 20 is received in the undercut end 24, these shoulders will be received intermediate of the laid shingle, and the shingle applied thereover, as shown in Figure 8. The space intermediate the laid shingle and the shingle placed thereon is

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fitted by the extension of the shoulders 28 or 29, as shown in Figures 6 and 14 and it is a line drawn through these shoulders or apices that forms the upper triangular portion of the shingle.

If a roof is laid in the manner previously described, a roof surface is provided wherein the top and bottom rows of each shingle are locked together, and each shingle is locked to every other shingle.

The shingles will be all interlocked by reason of the bevelled shoulder and undercut V-shaped notch. A solid roof is therefore constructed of the many shingles which are interlocked together.

The roof, due to the interlocking of the shingles, is self-sustaining, eliminating any intermediate supports when supported at the top, bottom and both sides thereof.

Regardless of deterioration of the understructure, the roof constructed of these shingles will remain intact, not being dislodged or their position changed.

The shingles interlocking give the advantage of a single piece of material without seams or nail holes, through which water or other moisture will not penetrate.

It is believed that from the foregoing description, the advantages and formation of the shingles will be apparent to those skilled in the art, and it is to be understood that changes in the minor details of construction, arrangement and combination of parts may be resorted to, provided they fall within the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a roof covering structure embodying a plurality of courses of similar plate-like shingles, a plate-like shingle having one portion hexagonal in shape and the other portion triangular in shape, the edges of said triangular portion being bevelled in such a manner as to undercut the shingle, an outwardly inclined right angular

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shoulder comprising a thickened extension of the triangular portion extending downwardly on the reverse face of the hexagonal portion, the shoulder having an inwardly and upwardly undercut edge, a V-shaped notch formed at the apex of said triangular portion, said notch bevelled to correspond with the inwardly bevelled edges of the triangular portion, said shoulder engaging the V-shaped notch of a shingle in an underlying course of shingles, and said notch engaging the shoulder of a shingle in a succeeding course of shingles, so that each shingle will interlock with each other shingle and the top and bottom of each row of shingles will interlock to provide a rigid self-sustaining structure.

2. A roof covering structure comprising a plurality of courses of similar plate-like shingles, each shingle having an upper portion and a lower portion, each shingle having two downwardly diverging and inwardly bevelled edges on the upper portion thereof, a V-shaped undercut notch provided at the apex formed by said edges, an undercut right angular shoulder formed by a thickened extension of the upper portion and extending downwardly on the reverse face of the lower portion and extending between the two edges, the bevelled edges of the shoulder interfitting with the bevelled edges of the shingles laid in the underlying course, and the V-shaped undercut notch interfitting with the bevelled edges of the shoulder of the shingles on succeeding courses to provide a rigid self-sustaining structure on one side of the shingle.

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