

Jan. 24, 1928.

1,657,271

W. E. NELSON

REVERSIBLE SHINGLE

Original Filed June 8, 1925

3 Sheets-Sheet 1

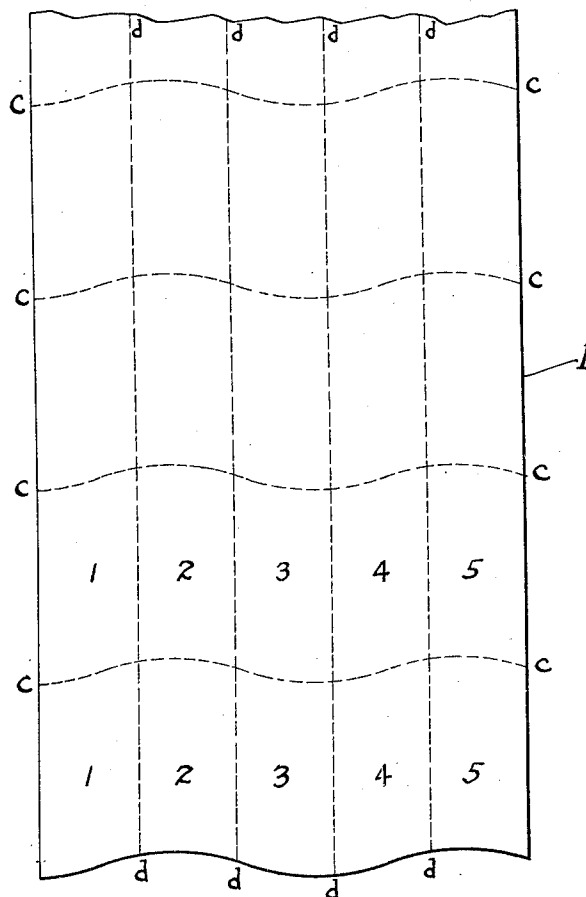


FIG. 1

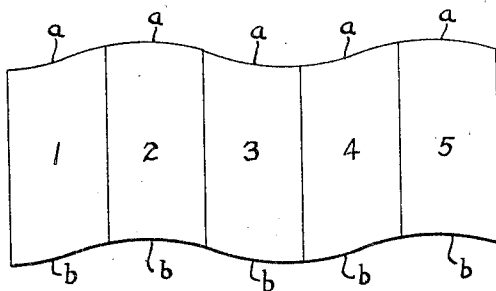


FIG. 2

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3 Sheets-Sheet 2

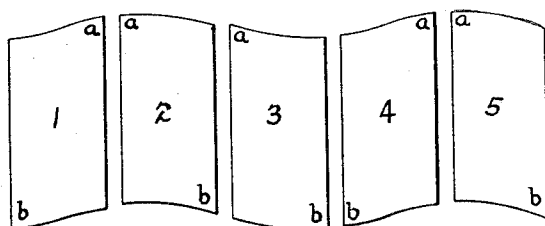


FIG. 3

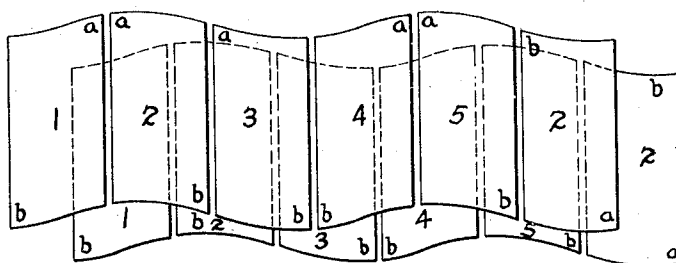


FIG. 4

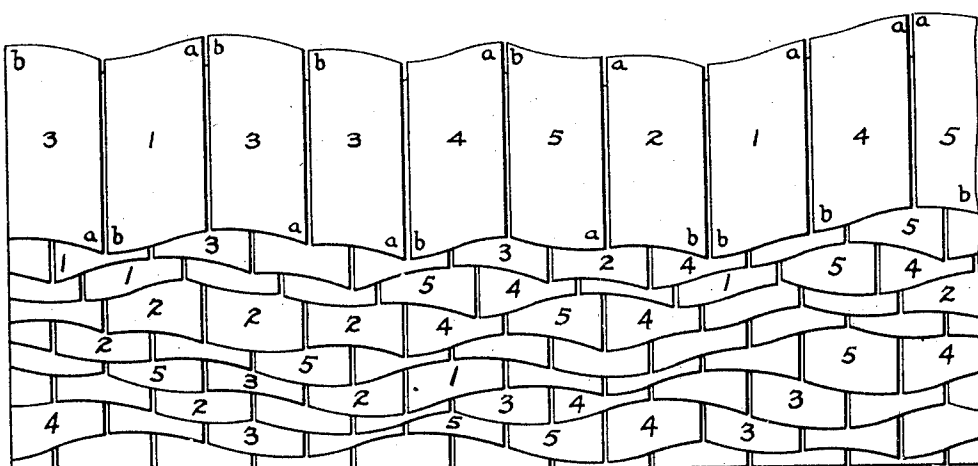


FIG. 5

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Original Filed June 8, 1925 3 Sheets-Sheet 3

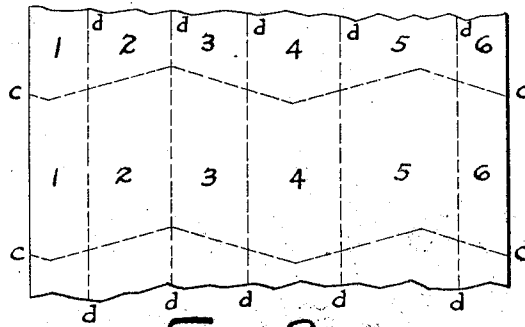


FIG. 8

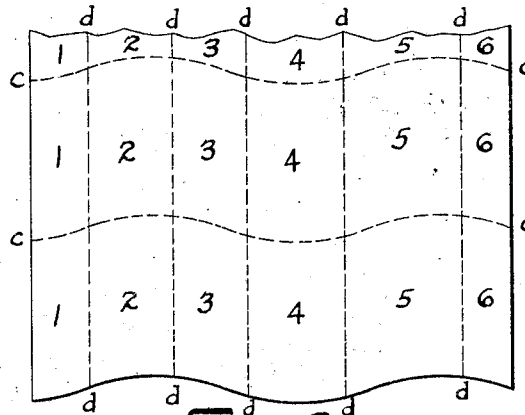


FIG. 6

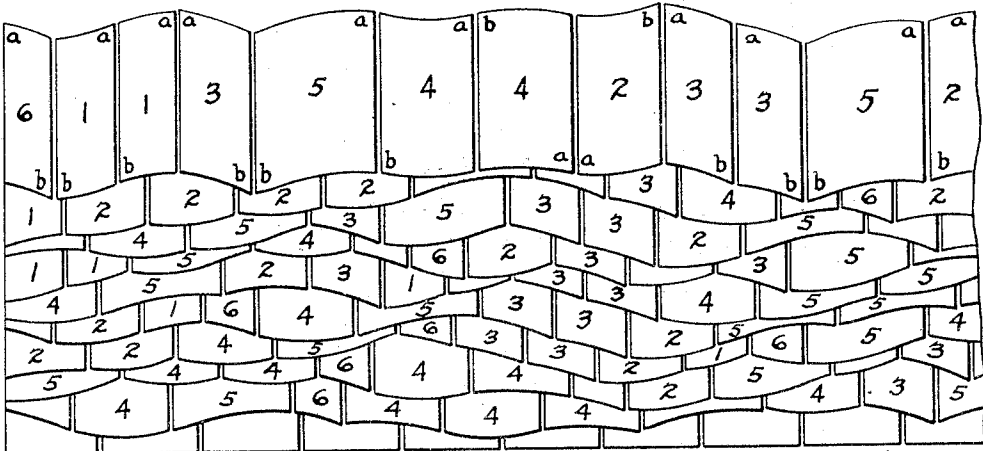


FIG. 7

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UNITED STATES PATENT OFFICE.

WILLIAM EDWIN NELSON, OF MINNEAPOLIS, MINNESOTA.

REVERSIBLE SHINGLE.

Original application filed June 8, 1925, Serial No. 35,595. Divided and this application filed July 21, 1926. Serial No. 123,977.

This invention relates to improvements in prepared roofing shingles, and particularly to improvements in shingles that are used to obtain a thatch effect upon a roof, and to do this by means of shingles that are single, independent and reversible. This application is divisional of application Serial No. 35,595, filed June 8, 1925.

An object of the invention is to produce a single, independent and reversible shingle, consisting of a section of prepared roofing material, and each such shingle being provided with straight, parallel sides and with irregularly extending, similar curved ends, whereby, when some of the shingles are reversed while being laid on a roof, a very decided thatch effect may be produced.

A further object of the invention is to produce from strips or webs of prepared roofing material, a plurality of independent, reversible shingles of different widths, each having substantially straight parallel sides and irregularly extending, similar curved ends, whereby some of the shingles may be reversed while being laid, to provide a thatch effect.

Other objects of the invention will appear from the following description and the accompanying drawings, and will be pointed out in the annexed claims.

In the accompanying drawings there has been disclosed a structure designed to carry out the various objects of the invention, but it is to be understood that the invention is not confined to the exact features shown, as various changes may be made within the scope of the claims which follow.

In the accompanying drawings forming part of this specification,

Figure 1 is a plan view of a sheet of roofing material, the dotted lines thereon indicating the manner of cutting the same to produce my improved shingle;

Figure 2 shows a strip severed from the main sheet of roofing material, and longitudinally divided to provide a series of shingles—in this instance 5—cut across the width of the sheet;

Figure 3 is a view similar to Figure 2, showing the individual shingles slightly separated as they would be in laying the same upon a roof;

Figure 4 is a similar view showing two rows of shingles placed one over the other;

Figure 5 is a view showing a portion of a roof covered with my improved shingles;

Figure 6 is a view showing the manner of cutting the roofing sheet to produce shingles of different widths;

Figure 7 is a view showing a portion of a roof as it will appear when covered with the shingles of different widths illustrated in Figure 6; and

Figure 8 is a view showing the shingles formed by a series of similar, transverse, broken lines.

In the drawings, 1 represents a sheet of prepared roofing material of any suitable thickness, width and length, the length of the material being usually very much greater than the width, so that the material may be produced in the form of a roll from which it is drawn as it is passed through the machine to form the shingles.

In producing the shingles herein shown and described, I sever the sheet 1 crosswise by curved scores or cuts *c—c*, as shown in Figures 1 and 6 of the drawings, or by broken straight cuts *c—c*, as shown in Figure 8 of the drawings, and I simultaneously sever the sheet lengthwise by the straight scores or cuts *d—d*. The scores or cuts *c—c* are preferably in the form of compound and somewhat irregular curves, as shown in Figures 1 and 8, although these cuts or scores may be in broken straight lines as shown in Figure 8. In every instance the lines of the cutting or scoring are preferably substantially parallel to one another so that the single shingles in each longitudinal row are duplicates one of another, but the shingles in any one longitudinal row preferably differ from the shingles in each of the other longitudinal rows. For convenience, I have numbered the shingles of one transverse row with the figures 1, 2, 3, 4 and 5 in Figures 1 and 6, and with the figures 1, 2, 3, 4, 5 and 6 in Figure 8, and I have lettered one end of each of the shingles with the letter *a* and the other end with the letter *b*.

The longitudinal cuts or scores, as shown in Figures 1-5, may all be equally spaced so that the shingles will all be of the same width and substantially the same length. I may, however, arrange the longitudinal cuts or scores at unequal distances apart, as shown in Figures 6, 7 and 8, whereby some of the shingles will be of greater width than

others. In this instance, as in the other construction shown, the shingles in each longitudinal row will all be duplicates one of another while the shingles in each transverse row may differ materially in width.

It will be seen that by cutting the shingles as above described, I produce single, independent shingles, with complementary curved or irregular ends, and, as shown in Figures 1-5, the shingles will all be of the same width and the same length; but the ends of each shingle crosswise of the sheet will differ from the ends of every other shingle crosswise of the sheet, and the ends of each shingle in a longitudinal row will be the same as the ends of every other shingle in the same longitudinal row.

In laying the shingles they may be secured upon the roof, if desired, in regular lines, each shingle projecting the same distance from the overlying shingle, but I prefer to lay the shingles with irregularly projecting butts, as illustrated in Figures 5 and 7 of the drawings, where some of the shingles project greater or less amounts than other shingles on the same roof, thereby producing what is commonly called, a thatch effect, as illustrated in Figures 5 and 7.

To increase this irregularity, any shingle may be turned end for end or reversed when placed upon the roof, it being only necessary that the corners of the shingles in the same course come substantially opposite each other, as illustrated in Figures 4, 5 and 7.

A very decided thatch effect may be produced by this method of laying the described shingles, as illustrated in Figures 5 and 7 of the drawings, the irregularity of the shingles being very greatly accentuated by reversing a considerable number of the shingles and by irregularly placing the different shingles produced from a single cross and longitudinal cutting of the sheet. For instance, in the illustration in Figure 5, there is in the uppermost row, reading from left to right, first, the shingle 3 of Figure 4 reversed; the second is shingle 1; the third and fourth are both shingles 3 reversed; the next is shingle 4; the next shingle 5 reversed; shingles 2, 1 and 4 come next in order, and then shingle 3 reversed.

Some of the other shingles illustrated in Figure 5 are numbered to correspond with the numbering in Figure 4, and it will be seen that an infinite variety of patterns of roof may be obtained by the use of these reversible shingles having the irregularly curved ends.

Figures 6, 7 and 8 illustrate a modified construction, wherein the shingles formed from each transverse strip or section of roofing material, are of different widths. I have, in Figures 6 and 8, numbered the shingles transversely of the sheet with the

numbers 1, 2, 3, 4, 5, and 6, the shingles numbered 1 and 6 being quite narrow, the shingles numbered 5 being widest of those illustrated, and the others of intermediate width. The same arrangement of irregular widths is illustrated in Figure 8. In Figure 7, I have shown a portion of a roof made up from the shingles of different widths produced by cutting the sheet illustrated in Figure 6. In laying the roof illustrated in Figure 7, the thatch effect illustrated in Figure 5 is also obtained and the irregularity is made somewhat greater by having shingles of different widths which may be arranged irregularly as illustrated.

It will be seen that if the sheet from which the shingles are formed is provided with a square end the first row of shingles will have one end straight clear across. After that all of the shingles cut from the strip will have both ends irregularly curved, or of irregular broken lines, as shown in Figure 8, one end being the complement of the other, and there will be no waste in cutting the sheet.

I may, if preferred, use sheets of different colors in forming the shingles, and the different colored shingles may be grouped in any preferred way upon a roof to get any desired color effect.

I do not limit myself to any particular width or length of shingle, nor to any particular irregular curve or broken line for the end of each shingle. Each shingle, however, is provided with ends that are irregularly curved or broken and are complementary.

The end lines of each shingle are in every instance preferably substantially parallel or similar to each other, although the ends of the different shingles may vary one from another, as illustrated and described.

I claim as my invention:

1. A single independent reversible shingle consisting of a section of prepared roofing material provided with straight parallel equal side edges and with curved end edges extending at various angles to the sides whereby, when a plurality of said shingles are placed side by side on a roof and some of them reversed end for end, the exposed ends of the shingles will form a continuous irregular wavy line across the roof.

2. A single independent and reversible quadrilateral shingle consisting of a section of prepared roofing material provided with straight and parallel sides of equal length and with irregularly extending parallel ends joining the sides whereby, when a plurality of said shingles are placed side by side on a roof and some of them reversed, the sides will be parallel with the sides of the roof and the corners of the exposed ends of the adjacent shingles will be opposite each other while the bottoms of the shingles will form a continuous irregular line across the roof.

3. A single independent reversible quadrilateral shingle consisting of a section of prepared roofing material provided with straight parallel equal side edges and with end edges extending continuously across the shingle at various angles to the sides whereby, when a plurality are placed side by side on a roof and some of them reversed end for end, the exposed ends of the shingles will form a continuous irregular line across the roof.

4. A single independent and reversible shingle consisting of a section of prepared roofing provided with straight and parallel sides of equal length and with parallel curved ends the end lines joining the side lines at various oblique angles whereby, when a plurality of said shingles are placed side by side on a roof with side edges of the shingles in each row in vertical planes at

right angles to the plane of the roof, the corners of the exposed ends of the adjacent shingles will be opposite each other and when some of the shingles are reversed the exposed ends of the shingles will form a continuous but irregular and wavy line across the roof.

5. A roof composed of quadrilateral shingles having equal parallel sides and parallel ends at oblique angles thereto, in each course of which the said shingles are laid side by side with a portion of said shingles reversed, with such relation to the line of the exposed ends to give it a wavy appearance, the adjacent courses being staggered with relation to said course.

In witness whereof, I have hereunto set my hand this 16th day of July, 1926.

WILLIAM EDWIN NELSON.