Sept. 28, 1926. 1,601,127

O. D. McFARLAND

METHOD OF CUTTING SHINGLES

Filed Feb. 17, 1921

Fig. 5.

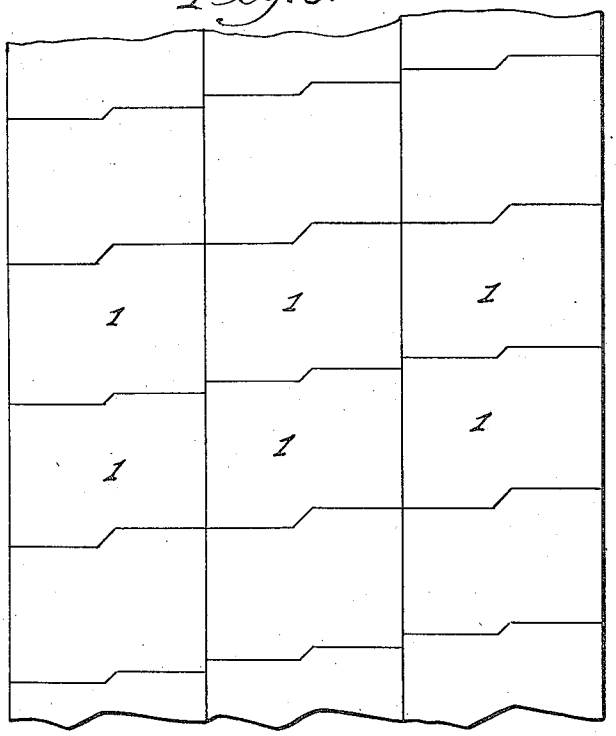


Fig. 4

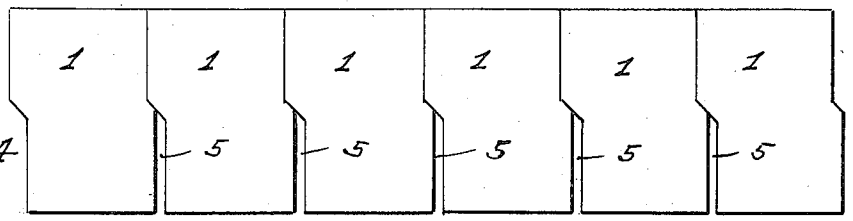


Fig. 3.

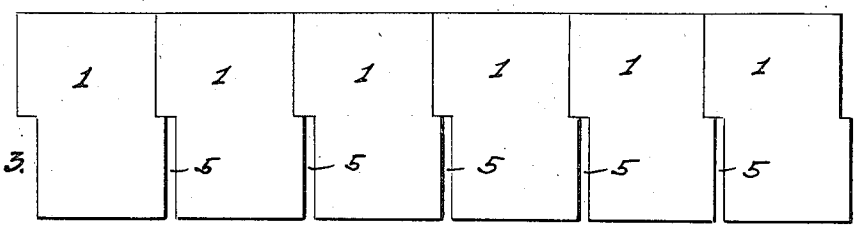
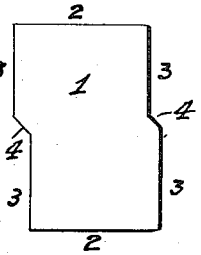


Fig. 1.



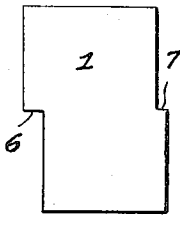


Fig. 2.

Witness,

Inventor,
Owen D. McFarland.

By Frank L. Belknap. Atty.

Patented Sept. 28, 1926. 1,601,127

UNITED STATES PATENT OFFICE.

OWEN D. McFARLAND, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GUYTON & CUMFER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

METHOD OF CUTTING SHINGLES.

Application filed February 17, 1921. Serial No. 445,870.

Among the salient objects of the invention are to provide prepared shingles of the self-spacing type which are so cut that besides the self-spacing quality the shingles are properly alined due to the configuration of their cut sides; to provide a shingle unit which, when laid upon the roof, forms a more unitary structure due to the closely fitting edges of the adjoining shingles and a shingle structure which is more impervious to water or dampness which may seep or work its way up the body of the shingle, the fitted sides or edges of the shingle being so cut that, when laid, their adjoining edges expose only a water-tight connection; to provide a shingle which is more simply laid and one that may be cut from the sheet with no loss of material due to waste.

Fig. 1 is a plan view of a shingle.

Fig. 2 is a modified form incorporating the same features with the lateral edges slightly different.

Fig. 3 shows a means of laying the modified form or that shown in Fig. 2.

Fig. 4 shows a means of laying shingle units shown in Fig. 1.

Fig. 5 is a face view of the roofing sheet showing the method of cutting the shingle unit shown in Fig. 1.

The drawings clearly disclose the particular form of shingle units which are preferably cut from felted fibrous material saturated with bituminous composition and covered with a granular facing. The particular saturation or facing is of no importance in the invention, the method of severing the shingles and the shingle units produce thereby comprising the novel disclosure. The shingle units 1 are cut with two straight parallel edges 2 comprising the ends of the shingle, the sides having separate parallel portions 3 connected by diagonal portions 4. The diagonal portion of the one edge of the shingle is twice the length of the diagonal connecting portion on the opposite side. When laid upon the roof, as shown in Fig. 4, the diagonal portions are joined forming a weatherproof space between the two adjacent shingles. In addition to making the spacing 5 between the shingles weatherproof, the distance between the shingles is kept uniform by the method of cutting the diagonals on the sides of the shingles as explained. In the usual type of self-spacing shingle water or dampness working up the sides of the shingle in the space portion is not prevented from working back the entire length of the shingle as the shingles are simply laid side by side and a cut-out portion in the lower half of the shingle furnishing the shingle spacing. In the present method of cutting the shingle the joint or engagement of the diagonal cuts present a closed space between the shingles when laid upon the roof and prevents the water from going further than this joint.

A modified form of the self-spacing and self-alining shingle is shown in Fig. 2. This shingle is very similar to the one just explained except that the two parallel side portions are connected by right angle cuts, the transverse connecting severance 6 on one side of the shingle being twice the length of the opposite severance 7 on the other side. The shingles are laid as shown in Fig. 3 similarly to those shown in Fig. 4 and produce an identical effect on the roof in the way of design and combine also the waterproof qualities of the shingle with diagonal cuts on its lateral edges.

It is understood, of course, that the rows of shingles are laid in overlapping relation, the top of the spacing being approximately the lower edge of the next overlapping row. In addition to its weather and damp-proof qualities, the shingles when laid are less liable to become displaced due to slipping or working down of the single shingle units presenting an uneven design. A roof built of these shingles is more impervious to weathering which together with the factor of eliminating waste in the cutting of the shingles makes the units very desirable in the prepared roofing art.

The method of cutting the shingles is obvious from a glance at Fig. 5. A series of shingle units are marked out on the sheet of roofing material in such a way that the individual shingle units are cut out of the sheet without any waste. For instance, assume two shingles are to be cut out of the sheet. They are marked out with their sides 3 uniform in length, the elongated portion 4 dividing the two units in the center. On each side will be marked the shorter portions 4. The two tabs are cut out and by simply reversing one of the units, they form the roof as shown in Fig. 4.

I claim as my invention:

1. A method of producing shingle units

from a larger sheet, without waste, consisting in cutting said sheet of roofing material into shingle units having substantially parallel side walls and shoulders of relatively different length on opposite side walls of each unit constituting self-spacing elements.

2. A method of cutting individual shingle units from a larger roofing sheet without waste, consisting in severing said sheet to produce individual elements having substantially parallel side walls and offset shoulders of relatively different depth on opposite side walls of each unit.

3. A method of cutting individual shingle units without waste from a roofing sheet, consisting in severing said sheet to produce individual elements having substantially parallel side walls and shoulders of relatively different depth on opposite side walls of each unit constituting self-spacing elements.

OWEN D. McFARLAND.