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METHOD OF CUTTING STRIP SHINGLES

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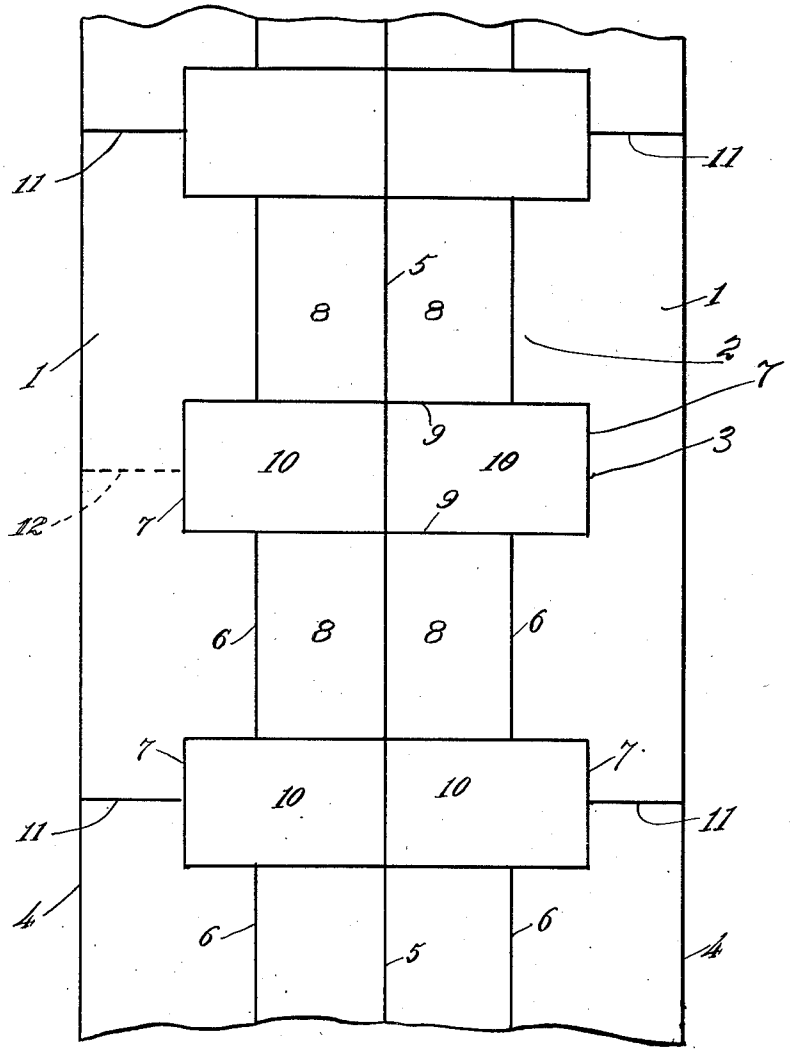

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METHOD OF CUTTING STRIP SHINGLES.

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My invention relates to the formation of a slab or strip shingle which is distinguished by the fact that it is formed with tabs or projections interspaced by non-projecting portions which have a size sufficient to expose a panel-like portion of roof, with the projections of larger size than the spaces, so as to give an over-lapping effect when laying the slabs in courses on a roof.

The difficulty in connection with the manufacture of special designs of roofing is that they must be cut so as to effect the greatest possible economy of roofing material.

According to my invention in the so-called wide spaced slab shingle, set forth in my U. S. Patent No. 1,348,503 dated August 3, 1920 I saved the loss of roofing and at the same time made other than a symmetrical cut of the uneven edge of slab shingles, by cutting out interspaced oversize or giant shingles from a strip or roofing, and then slicing the roofing so as to bisect the spaces left by the cut, thereby forming at both sides of the slice, the desired serrated or uneven edge for a roofing slab.

The process of so cutting out a slab shingle of the special kind desired according to my patent, would result in what I believe to be an overproduction of giant shingles, as far as the market at present is concerned. I have accordingly worked out the method of cutting of the present application so as to provide for the cutting out of ordinary size shingles, or even undersize shingles, with the resulting production of a slab shingle of the same type set forth in my patent, but which has the additional advantage of having shorter projections, so that tendency to curl is avoided. I preserve the substantially same economy in coverage as in my former slab, with the same thickness of roofing throughout the roof.

Another advantage which I have by my new process, is that I utilize the entire sheet of roofing material in the cutting machine in the production of salable products in proper proportion, and at the same time obtain slab shingles which are always alike, instead of being lefts and rights, as in my former application.

These objects I accomplish by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawings, the figure is a plan view of a portion of a section of roofing showing the slab shingles and individual shingles, and the method of cutting them out.

I wish to note at the outset that my present invention has to do with the improvement of the wide space effect slab shingle, and the economy of cutting as well, and is capable of variation depending upon the size of individual size shingle, which it is desired to produce.

In its essence the slab shingle is one having a butt or lengthwise extending portion 1, and projections 2, interspaced by spaces 3 which are of less width than the projections. The projections are lengthwise of the slab equal in length to the individual shingle to be cut out, and the width of the projections and of the spaces, crosswise of the slab, is equal to the difference between the length of an individual shingle and its width and the dimension of the spaces is equal lengthwise of the slab to the width of an individual shingle.

It is thus possible to assume any size of individual shingle, since it will always be of greater length than breadth, (considering shingle dimensions) and produce a slab shingle in which the projections or tabs are long (considering the dimensions of the slab) and stubby, so as to prevent curling and give a decided effect on the roof, which is not found in uniform thickness roofing of ordinary character.

The dimensions of shingles made of composition roofing, are naturally limited by accepted dimensions in wooden and slate individual shingles or tiles. Wooden shingles thus are of several characters. Standard size—8 by 12¾ inches:—Subsize or siding shingles less in both or either one dimension than individuals:—Giant or oversize shingles 9 or 10 inches by 12¾, 14 or 16 inches.

According to my invention I may produce four shingles of one selected character and four more shingles of the same or a different character for each pair of wide space slabs. In doing this I may produce different effects in the shape and spacing of the projections. Also in doing this I can, to a measure, fit the production to the size of shingle cutting machine which happens to be available in the roofing factory. Furthermore, my cutting can be done without removing the cut-outs until the cutting is complete.

In the example shown all individual shin-

gles are of the same size. The entire view of the drawing shows a section cut lengthwise from a sheet of prepared roofing material, of sufficient width to produce pairs of slab shingles facing each other.

In forming the cut of the roofing piece continuous lengthwise, lines of cut 4, 4, are made dividing up the piece into the double sections of which the view is one. Along the center of each double section a line of cut 5 is made.

The lines of cut 6 defining the outer edges of the tabs or projections are interspaced lengthwise of the piece and the lines 7 defining the inner walls of the non-projecting spaces, are also interspaced lengthwise of the sheet.

The lines 6 are the length of a desired individual shingle, and are interspaced crosswise of the sheet sufficiently to leave a space which is twice the width of the desired shingle 8, whose length is that of line 6. The line 5 divides the space between the cuts 6, thereby forming the side edge of a pair of shingles.

Pairs of lines of cut 9, 9, crosswise of the sheet are made, said cuts extending from the cuts 7 across the sheet, thereby forming the edges of the tabs or projections, and at the same time defining individual shingles 10, of which the line 5 forms one edge and the lines 7 form the other edges.

The lines 9 also define the ends of the shingles 8.

It can now be observed that the width of the tabs or projections is equal to the difference between the width of the shingles 8 and the length of the shingles 10, and that the width of the shingles 10 governs the width of the interprojection spaces.

It can also be observed that the shingles 10 and 8 need not be of the same dimensions but can be varied.

In cutting out the slabs so as to leave two projections for each slab, and half of a non-projection space at each end I form lines of cut 11 crosswise of the sheet, interspaced as desired, but preferably always bisecting a space or line 7.

Where the roofing machine of the manufacturer can take care of a given number of inches in width as a maximum, the placing of the knives on the cutting rolls can be such as to arrange the total width of the cutting, by regulating the width of the shingle sections 8, which are cut out. From the dimensions given of the various standard sizes of shingle, it will be evident that this will give a number of inches leeway out of a total, for example of seventy inches.

The width of the butts 1 of the slabs or strips is closely related to the width of the tabs or projections, so that in laying the slabs in overlapping courses there will be sufficient underlap of courses to give the desired thickness over-all of roofing material. The standard method of laying the slab shingle shown in the drawings will be for the projections of one course to come about to the edge of the interprojection spaces of the slabs of the preceding course. Also for good effect the projections should be placed so that their center is on a line with the center of the adjacent space of the course beneath.

If it is desired to form T-shaped individual shingles the slabs could be cut also at the line 12.

The variation in exact shape of the design shown in the drawings should not be construed as a departure from the principles of my invention, which I will now proceed to set forth in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A method of cutting out without waste slab shingles which consists in dividing a sheet of roofing material in slabs having interspaced shingle simulating projections extending toward each other but separated by a portion of roofing adapted in size to form one or more shingle pieces.

2. A method of cutting out, without waste, slab shingles from a sheet of roofing material, which consists in dividing a sheet of said material into slabs, with interspaced shingle simulating projections extending towards and abutting each other, in which the projections lengthwise of the slab are equal to the length of the individual shingle, and the depth of the projections are equal to the difference between the length of an individual shingle and its width, and in which the space between the projections is equal to the width of the individual shingle.

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