March 16, 1943. S. DRESSEL ET AL 2,314,036

METHOD OF MANUFACTURING ROOFING TRIM

Filed July 24, 1939

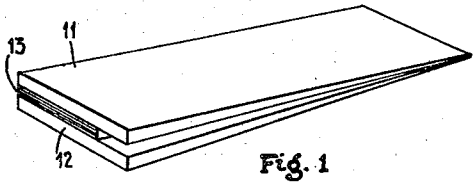


Fig. 1

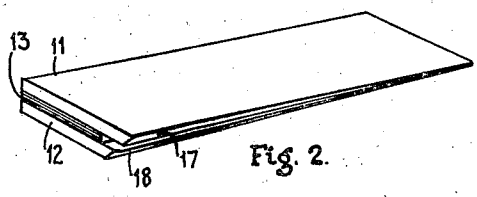


Fig. 2.

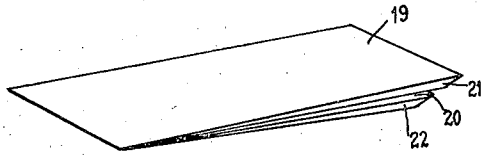


Fig. 3.

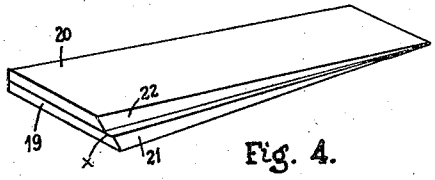


Fig. 4.

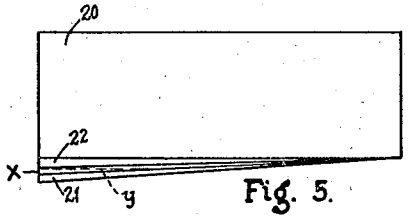


Fig. 5.

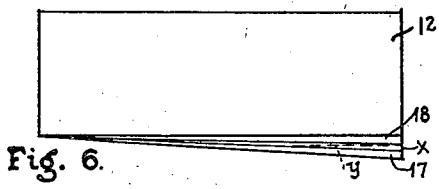


Fig. 6.

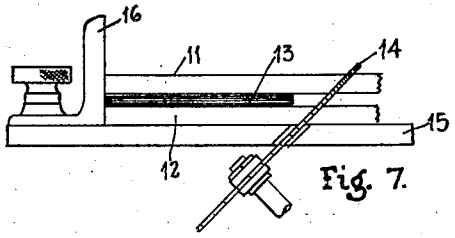


Fig. 7.

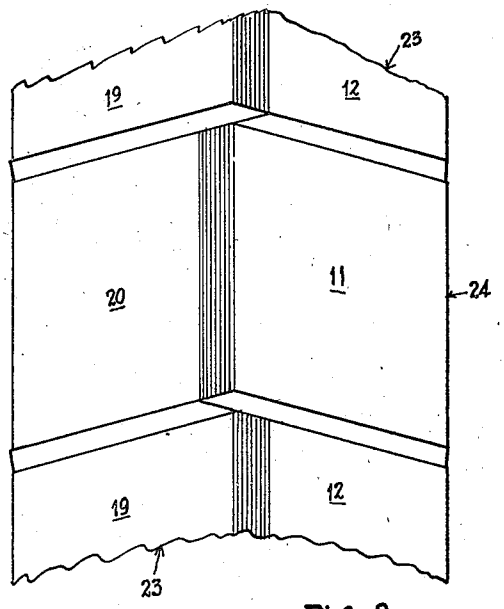


Fig. 8.

INVENTORS
Segal Dressel.
Clement A. Dressel.

BY Robt. L. Quinn.

ATTORNEY

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METHOD OF MANUFACTURING ROOFING TRIM

Segal Dressel and Clement A. Dressel,
Los Angeles, Calif.

Application July 24, 1939, Serial No. 286,222

4 Claims. (Cl. 144—309)

Our invention relates to a method for manufacturing trim for finishing hips, ridges, etc., on roofs. The present invention refers to a copending application in which the product of the present method is disclosed and claimed under Serial Number 252,766, filed by us on January 25, 1939.

The primary purpose of the invention to be described hereinafter is to provide a method for beveling the edges of shingles, whereby a pair of shingles may be overlapped on their beveled edges to form a V-shaped trough that may be later inverted and used as roofing trim to cover hips, ridges, etc., on roofs. The degree of the bevel will naturally control the angle of the troughs and may obviously be varied to suit any pitch of roof desired. These V-shaped troughs are nailed in place similar to shingles or shakes and, in order to present a workmanlike appearance and provide a good fit when installed, the two sides of the trough should be substantially equal in width. Therefore, since the shingles are overlapped on their edges, one of the shingles must necessarily be the width of the bevel wider than the other. This entails the forming of a wide and a narrow beveled member. Furthermore, in finishing hips, ridges, etc., on roofs, the general practice requires that all joints must be overlapped to prevent leakage. To meet this requirement, our invention provides a way of forming right and left hand pairs of trough-shaped roofing trim, so that the joints of alternate pairs may be staggered when the trim is installed over a hip or ridge.

In our method we cut a pair of shingles in one operation; that is, we superpose one shingle on the other with the butt ends and the tip ends coinciding and then bevel one edge of each of the shingles by an inclined saw in a single operation. The result is a wide and a narrow shingle, due entirely to the angle of the saw and the thickness of the shingle. Obviously, the thicker the shingles the greater will be the difference in the width of the shingles, and due to the tapering of the shingles the greatest difference exists at the butt end of the shingle. Under these conditions, at any given cross-section through both shingles it will be found that the top width of each shingle is greater or less than its bottom width and that the bottom width of the top shingle is greater or less than the bottom width of the bottom shingle, depending upon which way the saw is inclined. The tips are always substantially equal, regardless of the angle of the cutter. This effect is due to the inclined saw and the tapering of the shingles, and with the saw inclined at an angle to be hereinafter described results in a widening effect toward the butt end of the shingle which increases as the taper of the shingle increases. When laying up these V-shaped troughs on the roof, this difference in width becomes important in that the units must be laid with a weather exposure which will bring the butt end of each unit part way up the surface of the underlying unit where it will not be the same width and consequently will not furnish a smooth workmanlike fit and appearance. We have found that to obtain the proper width on the butt end of each shingle so that it will have the same dimension as the unit upon which it is laid, it is necessary to increase the widening effect toward the butt end of the shingles. We do this by spacing the butts and keeping the tips together. This in effect makes the top shingle wider at the butt than it would have been if it had laid upon the lower shingle during the cutting operation, and provides the difference in width which brings the butt ends into the proper dimension for laying with the weather exposure on other units. Accordingly, it becomes a further object of the invention to provide a method for beveling the edges of shingles wherein shingles are cut in superposed pairs with the butt ends and the tip ends coinciding and wherein the butt ends are spaced while the tips are held together. In practice, a tapered shim is used between the shingles during the cutting operation.

Other objects and advantages will become apparent as the description proceeds in conjunction with the drawing, in which:

Figure 1 shows a pair of superposed shingles ready for cutting with a tapered shim between the shingles;

Figure 2 shows the same pair of shingles after they have been beveled for the right hand members of units of roofing trim;

Figure 3 is similar to Figure 2 but shows the shingles after they have been cut for left hand members;

Figure 4 is a view of a left hand pair similar to Figure 3 after they have been turned over and the shim has been removed;

Figure 5 is a top plan view of a pair of shingles similar to Figure 4 showing a left hand pair;

Figure 6 is a view similar to Figure 5 showing a right hand pair;

Figure 7 is a schematic view showing one means for performing the cutting action on the shingles; and

Figure 8 is an enlarged view showing the manner in which our roofing units are laid up over hips or ridges on roofs.

Briefly stated, the method resides in cutting a bevel on the edges of shingles so that pairs of shingles may be joined together to form a V-shaped trough which may later be inverted and used to cover hips, ridges, etc., on roofs. The advantage of this is obvious, since the unit being pre-formed is merely laid and nailed in position, whereas under the old method each piece was cut and fit into position at the time it was installed. The means for cutting is unimportant, it being deemed sufficient to state that any sawing means or shaping means which will bevel the edges of a pair of superposed shingles at the desired angle in one operation is adequate insofar as the invention is concerned. However, as stated hereinbefore, it has been found in laying these units of roofing trim that there was need for compensating for the varying widths of the shingles, since this difference in width caused a ragged appearance when laid in place. This becomes obvious when it is understood that these units after they are formed are adapted to be laid up in a manner similar to shingles or shakes and that in order to present a workmanlike appearance the edges of the shingles over the hips or ridges should form a straight line. But it was found they would not do this when one shingle was superposed on another and the edges beveled. Under this set-up it was impossible to move one of the shingles up the face of the other, such as is done in weather exposing, and still maintain the same width on the under and overlying shingle. In order to overcome this obstacle, we conceived of the idea of spacing the butts of the shingles farther apart and holding the tips together, thereby increasing the widening effect of the saw toward the butt ends of the shingles. This in effect makes the narrow shingle narrower and permits that the narrow shingle be moved up on the face of the wider shingle until the butt end of the narrow shingle is of the same dimension as the face of the wider shingle. These facts will become clearer as the description proceeds in connection with the drawing.

In Figure 1 we have shown a pair of superposed shingles 11 and 12 having a shim 13 therebetween. As shown, these shingles are of the ordinary standard tapered type and the shim is likewise tapered to conform to the taper of the shingles. When the shim is in position, it will be noted that the butt ends of the shingle are spaced apart while the tips are together. In this condition the shingles are run through a beveling means shown in Figure 7. The means shown here consists of a saw 14 and a regulation table 15, but any other means such as a shaper or band saw will serve equally as well. The saw is inclined as shown and is driven by any conventional means not shown here. The table 15 carries the usual guide member 16 for guiding the work through the saw. It will be observed here that the shingles 11 and 12, separated by the shim 13, are being passed through the saw butt end first, which will produce the beveled edges 17 and 18 shown in Figure 2. These two shingles comprise a wide and a narrow right hand component of a pair of roofing trim. Figure 3 shows a wide and narrow left hand component of a pair of trim which is the result of passing a similar set of shingles shown in Figure 1 through the sawing means, but this time the shingles have been passed through the saw with the tip end first, and to further distinguish these parts we have designated these shingles 19 and 20 having beveled edges 21 and 22. In the shaping means shown in Figure 7, it will be noted that the saw is set at an angle to cut the bottom shingle narrower than the top shingle. The purpose of this will become apparent presently. Now then, assuming that the pair of shingles shown in Figure 3 is turned completely over end for end and the shim removed, we will get a pair of shingles such as shown in Figure 4. Here it will be observed that the tip ends of the shingles are all of substantially the same width, whereas the butt end of the top shingle 20 is narrower than the lower shingle 19 and, as shown in this view, the width of the bottom surface of the top shingle is even less than the width of the top surface of the bottom shingle. This discrepancy in width is indicated by the short line designated X and later becomes important in allowing the top shingle 20 to be moved upwardly on the lower shingle 19 until this difference disappears, which would be approximately the distance indicated by the dotted line Y, and the width of the lower surface of the shingle 20 becomes the same as the width of the upper surface of the shingle 19. In Figures 5 and 6 we have shown a top plan view of a left hand and a right hand pair of shingles respectively. Assuming that these are the same shingles previously shown in views 4 and 2, and that they have been turned over similar to Figure 4. Now then, bearing in mind that the pairs shown in Figures 5 and 6 were cut with the shingles 20 and 12 face down upon the table 15 and that these shingles were guided through the saw by the guide 16, it will become evident that the faces of the shingles 20 and 12 are true rectangles, that is, that the opposite sides are parallel. Also, it is apparent that the widths of all the shingles are all equal at the tips but that the butt ends of the shingles are all widened due to the angle of the saw and the taper of the shingle. This widening effect has been increased by the introduction of the shim 13 and has actually introduced an extra width in the bottom shingle in these views, as shown by the short section of line indicated by X. This short section of line X is controlled entirely by the shim thickness and the angle of the saw and determines how far the top shingle may be moved up on the lower shingle so that the bottom width of the butt end of the top shingle will equal the top width of the bottom shingle. This distance should be the usual amount exposed to the weather and is here shown by the dotted line Y which is parallel to the sides of the upper surface of the top shingle.

In forming these shingles into units of roofing trim, one of each of the pairs shown in Figures 2 and 3 are combined in the following manner: To form a right hand pair such as designated 23 in Figure 8, the shingle 12 is combined with the shingle 19, and to form a left hand pair such as designated 24 in Figure 8, the shingle 11 is combined with the shingle 20. The units are then laid up in overlapping relation as shown in Figure 8, and when installed in this manner will present a workmanlike appearance having straight side lines and overlapped joints.

Although we have used the term shingle throughout the specification and claims, it is to be understood that this term is intended to include any roofing material of the general shape and thickness of shingles.

We claim:

1. A method for making roofing trim consisting in simultaneously beveling one side edge only of a pair of superposed shingles having their tip ends together and their butt ends spaced from each other.

2. A method for making right and left hand roofing trim consisting in superposing shingles in pairs with their butt ends and tip ends coinciding and then beveling said pairs on opposite side edges respectively in an inward and downward direction.

3. A method for making roofing trim consisting in simultaneously beveling one side edge only of a pair of superposed shingles having a tapered shim therebetween with the butt end of said shim toward the butt ends of said shingles and with the butt ends and tip ends of said shingles respectively coinciding.

4. A method for making roofing trim consisting in superposing shingles in pairs with their butt ends and their tip ends coinciding and then beveling one side edge only of each pair in an inward and downward direction so that the lower face of the lower shingle is of the smallest area compared to the other faces of the said shingles.

SEGAL DRESSEL.
CLEM A. DRESSEL.