HIP, RIDGE AND VALLEY ROOFING SHINGLE

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1 Claim. (Cl. 18—24)

This invention relates to the roofing art and more particularly to a pre-formed single-unit universally adapted for finishing the hip, ridges and/or valleys of shingled roofs.

It has long been common practice to finish the hip and ridges of shingled roofs by initially covering or flashing the hip or ridge with a strip of water proof material, such as sheet metal or "roofing paper," and then attaching thereto a plurality of pairs of trim shingles, in a manner well known to the trade as "lacing" the hip or ridge. In such practice, a roof shingle of a pair of shingles is nailed in place on the roof and then trimmed with a bridge to a hip or ridge using a central bevelling edge intended to abut the underside of the second shingle of the pair, which second shingle is then nailed in place and trimmed to provide a bevelling edge coplanar with the upper surface of the first shingle laid. In the fabricating of the valleys of shingled roofs it has on the other hand been the practice to initially lay or flash the valley with a strip of sheet metal, after which shingles are applied to the opposite side of the valley, the shingles having been first cut diagonally across their butt ends so that the ends of the opposed valley shingles will extend parallel with the longitudinal center of the valley.

Such shingling operations require considerable time and skill on part of the shingler, and it has heretofore been proposed to provide a pre-formed single-unit embodying a pair of opposed shingles connected together in such a fashion that the pair of shingles may be applied by the shingler to the roof as a unit. Such pre-formed units have, however, been adapted solely for a particular finishing application; that is, for application either to the hip or ridge of a roof, or to a valley of the roof, such that a hip or ridge type unit could not be satisfactorily applied to a valley, nor could a valley unit be satisfactorily applied to a hip or ridge.

A principal object of the present invention is to provide a single pre-formed roof-shingle-unit particularly adaptable for universal use in finishing the valleys, hips or ridges of shingled roofs, which unit will be simple in construction, relatively inexpensive to manufacture, and which may be conveniently and easily applied to the intersections of the fields of the roof to advantageously seal such intersection, without the necessity of employing highly skilled labor.

Another object of the present invention is to provide an improved pre-formed roof-shingle-unit of the above type wherein a pair of opposed shingles are connected to lateral wing portions of a resilient metal bridging member, said bridging member having a generally longitudinally extending body portion of inverted, substantially V-shape adapted at its mouth to span the gap of the intersection between the two fields of the roof, whereby the lateral wing portions extending therefrom will be adapted upon bending of the bridging member at the central angle of the body portion and at the lateral angles of the wing portions to be formed in various angular positions to the body portions to correspond to the respective pitch of the two such roof fields.

A further object of the invention is to provide an improved pre-formed roof-shingle-unit of the above character particularly adapted for use in climates having a wide range of seasonal temperatures, the V-shaped body portion of the bridging member adapting and permitting the bridging body portion to contract or expand upon change in atmospheric conditions or temperature without disturbing the connection of the unit to the fields of the two roofs.

Still another object of the present invention is to provide an improved pre-formed roof-shingle-unit of the above character wherein the pair of opposed shingles are each pivotally secured to the respective wing portions of the bridging member, whereby the shingles of the unit may be adjusted upon assembly to the roof to correct for minor variations in alignment, at the gap formed at the intersection of the fields of the roof at the valley, hip or ridge thereof, thus providing for a neat and finished appearance.

Other objects will in part be obvious from the annexed drawings and in part hereinafter pointed out in connection with the following description of the invention. In this respect, it is pointed out that while one or more of the various members or elements of the roof-shingle-unit according to the present invention may be individually found in the prior art, the present invention consists solely in the features of construction, combination of parts, and in the unique relation of the various members as well as their relative proportioning and disposition, all as more completely outlined herein.

To enable others skilled in the art fully to comprehend the various applications of the roof-shingle-unit according to the present invention, reference is made to the accompanying drawing depicting the several applications of my roof-shingle-unit to the ridge, valley and hip of a roof, like reference characters denoting corresponding parts throughout all of the views, in which drawings:

Figure 1 is a perspective view of a roof-shingle-unit constructed in accordance with a preferred embodiment of the invention;

Figure 2 is a partial cross sectional view taken along line 2—2 of Figure 1;

Figure 3 is a perspective view in plan of the ridge of a roof to which the shingle-unit of Figure 1 has been applied;

Figure 4 is a partial cross sectional view, in elevation, taken through one of the shingle-units as applied in Figure 3;

Figure 5 is a cross sectional view in elevation showing the manner of applying the shingle-unit of Figure 1 to the valley of a roof;

Figure 6 is a side view and elevation of a roof showing the shingle-unit of Figure 1 applied along the ridge and hip of a roof, the shingle units being trimmed; and

Figure 7 is a detailed schematic view showing the manner of application of the shingle-unit according to Figure 1 for the purpose of correcting to the eye a misalignment at the gap of the intersection between two sides of a roof.

Referring first to Figures 1 and 2 of the drawings, the shingle-unit according to the present invention comprises generally a resilient metal bridging member 10 of rectangular shape, and a pair of opposed shingles 12 of conventional construction, each shingle 12 being rectangular in shape, longitudinally tapered in thickness, and of a longitudinal length approximately twice that of a bridging member 10.

The bridging member 10 comprises a central longitudinally extending body portion 14 of inverted, substantially V-shape, adapted at its mouth to span the gap at the intersection between the two sides of a roof, and lateral wing portions 16 extending from the mouth of the body portion. Since the body portion 14 of the bridging member is exposed to view, as will be explained hereinafter, the surface thereof may be suitably coated, as for example through a bronzing process or tinning process, or if desired by paint-
ing, to provide an attractive ridge at the intersection between the two roofs, whether it be along the ridge, valley or hip thereof.

As shown in Figure 2, the opposed shingles 12 are positioned longitudinally on either side of the body portion 14 as to overlie the outer faces of the wing portion 16. The inwardly disposed adjacent longitudinal edges 18 of the shingles 12 are spaced slightly outwardly from the center line 20 of the lateral angles between the respective wing portions 16 and the sides of the body portion 14. In accordance with a principal feature of the present invention, the two opposed shingles 12 are pivotally connected to and in the plane of the respective wing portions 16 by suitable means, here shown as a brass nail or rivet 22, the end 24 of which is bent over in a conventional manner. In this respect it should be mentioned that any suitable means may be employed for so connecting the shingles 12 to the wing portions 16, it being sufficient for the purpose of the present invention that such means will permit the shingles 12 to be pivoted about said securing means, as will be described in connection with the description of Figure 7.

In accordance with a preferred construction, each unit also includes a sheet 26 of flexible waterproof material of rectangular shape, having a longitudinal length equal to that of the shingles 12, and secured to the unit by means of the rivet 22 with its central longitudinally extending intermediate portion 28 formed to be within the inverted V-shape body portion 14 of the bridging member 10.

Referring now to the several applications of the roofing unit shown in Figures 3 through 6, it is believed that the particular various applications thereof whether it be along the ridge, valley or hip as a roof will be obvious to one skilled in the art. The shingle unit being supplied to the roofer in flat condition, that is with the pair of shingles 12 flatly disposed in the same plane, the roofer having previously applied the conventional courses of roof shingles 30 to each side of the roof to the intersection between the two such sides, would proceed as follows:

Considering Figures 3 and 4, starting from the right, the roofer takes the shingle-unit and then bends the sides and wing portions 16 thereof along the central angle 28 of the body portion 14 such that the mouth of the body portion will span the gap (see Figure 4) of the intersection formed at the ridge board 32 between the two sides of the roof; then bending the lateral wing portions 16 at the angle 20 formed by the wing portions with the body portions 14, to angularly position the respective wing portions 16 and shingles 12 to the pitch of the two sides of the roof adjacent thereto. The shingle-unit is then secured to the roof by nails driven through the "thin" end of each of the shingles 12 into the roof, such that the edge of the nail will be covered by the next shingle-unit when applied. Following this procedure, the shingle-units are successively applied in an overlapping relation along the ridge of the roof, presenting, as shown in Figure 3, an attractive, weather-proof and resistant ridge covering, embodying all the advantages and objects hereinbefore set forth.

Referring to Figure 5, the application of the roof shingle-unit is the same as that described in connection with Figures 3 and 4 with the exception that one of the shingles 12 will be covered by the thick or butt end of the later applied course of roofing of the conventional shingles 30. In other respects, however, the shaping of the central angle 28 of the body portion 14 to provide a spanning mouth of desired width, the bending of the lateral wing portions 16 to correspond to the respective pitch of the two sides of the roof, and the nailing of the shingle-unit to the roof, being substantially the same.

The application of the shingle-unit to the hip of the roof, as shown in Figure 6, is similarly substantially the same as that described in connection with Figures 3 and 4; that is, the shingle-unit is applied over and after the conventional shingles have been applied in their proper courses to the sides of the roof and to the line of the intersections forming the hip. In this application, however, to provide an attractive hip trim, the outer corners of the thick but ends of the shingles 12 of the shingle-unit are trimmed by the roofer with a hatchet prior to their being nailed in place. For this purpose the shingles 11 of the unit may be lightly scored or inscribed, as at the lines 34, see Figure 1. A plurality of such lines impressed or printed on each such shingle 12, properly marked by angular reference, will enable the roofer to trim the shingle along the line corresponding to the pitch of the hip.

Due to the pivotal connection between the shingles 12 and the lateral wings 16 of the bridging member 10, the shingle-unit is particularly adapted to correct, as appearing to the eye, minor deviations between a true line of intersection between the two sides of a roof at a ridge, valley or hip; such that the shingle-unit when applied by the roofer astride the gap or joint therebetween, provides for relative angular adjustment of the shingles 12 in the plane of the roof to align the lateral edges of the successive shingles 12 in parallel relation. See Figure 7.

As will be apparent from the foregoing, the present invention provides a pre-formed shingle-unit which is universally adapted for use along the ridge, valley or hip of a roof, substantially reducing the labor cost of trimming hip, valleys and ridges with wood or composition shingles; which, when installed along the hip, valleys or ridges will be unaffected by expansion of the roof due to temperature changes or climatic conditions; and which, in view of the pivotal connection between the shingles 12 and lateral wings 16 of the bridging member 14, is adjustable to permit the opposed pairs of shingles 12 to be angularly adjusted in the respective planes of the two sides of the roof and individually aligned with respect to the course of shingles 30 conventionally applied to the roof as well as to the shingles 12 of successive units applied along the intersection.

I claim:

As an article of manufacture, a pre-formed roof-shingle-unit of the type described comprising a resilient metal bridging member of rectangular shape having a central longitudinally extending body portion of inverted, substantially V-shape adapted at its mouth to span the intersection between two sides of a roof and lateral wing portions extending therefrom adapted upon bending the bridging member at the central angle of the body portion and at the lateral angles of the wing portions to be formed in various angular positions to the body portion to correspond to the respective pitch of the two said sides of the roof adjacent the line of intersection therebetweeen, a pair of opposed shingles of rectangular shape longitudinally on either side of said body portion as to overlie the outer faces of said wing portions with the adjacent longitudinal edges of said shingles spaced outwardly from the centerlines of the lateral angles of the respective wing portions and the sides of the body portion, said bridging member extending approximately half the longitudinal length of the opposed shingles, a sheet of flexible waterproof material of rectangular shape adjacent the undersurface of said bridging member and shingles, said material having a length substantially co-extensive with the longitudinal length of said opposed shingles and a central longitudinally extending intermediate portion shaped to extend within the inverted V-shaped body portion of the bridging member, and rivet means pivotally connecting said bridging member at a forward point on each of its said wing portions to said shingles and flexible waterproof material, adapted when successive units are applied to overlapping positions along the line of intersection between the two sides of the roof with the body portions in alignment with the said line of intersection, to permit the opposed pairs of shingles to be angularly adjusted in the respective planes of the two said roof sides, and individually aligned with respect to one another.

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