Nov. 1, 1932. N. P. HARSHBERGER 1,885,346

SHINGLE ELEMENT

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Fig. 1.

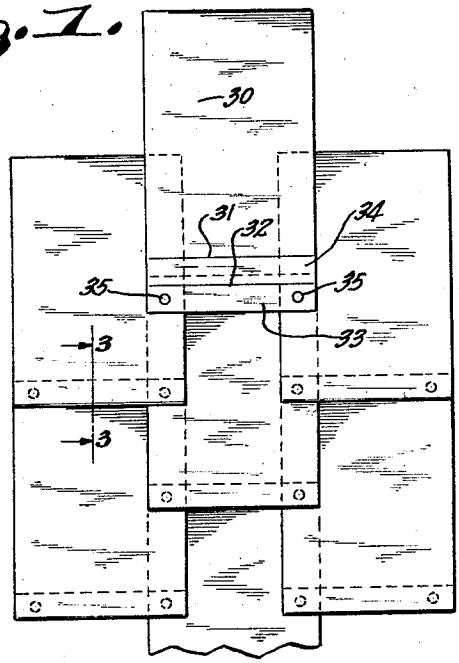


Fig. 2.

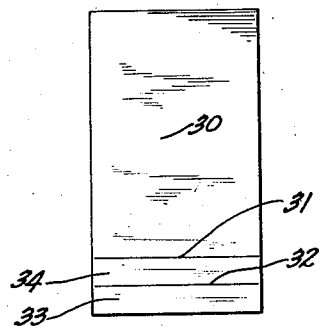


Fig. 3.

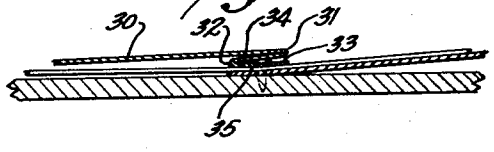


Fig. 5.

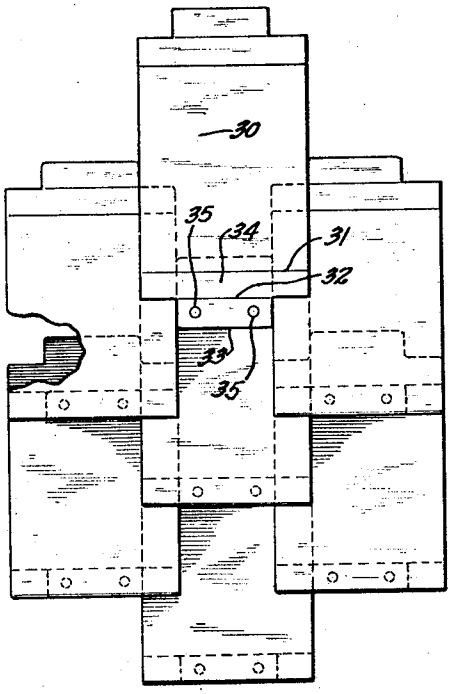


Fig. 6.

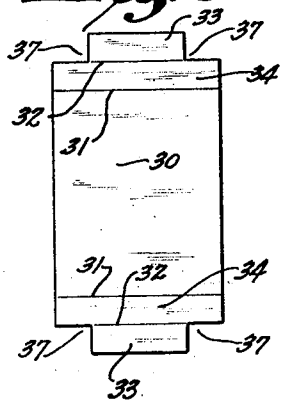
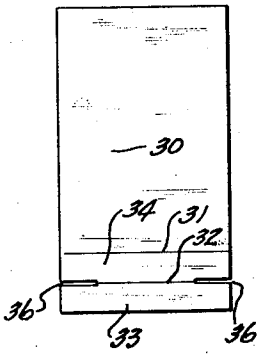


Fig. 4.



INVENTOR.
Norman P. Harshberger
BY
Morsell & Morsell
ATTORNEYS.

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Fig. 7.

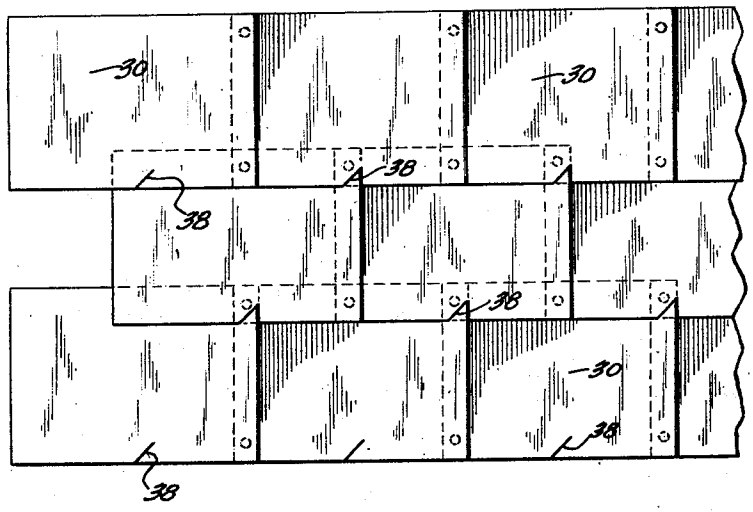


Fig. 8.

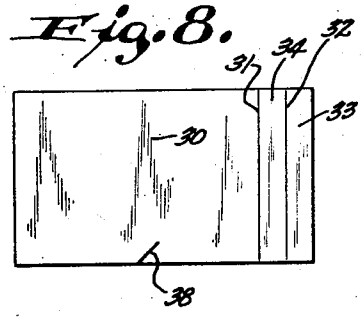


Fig. 9.

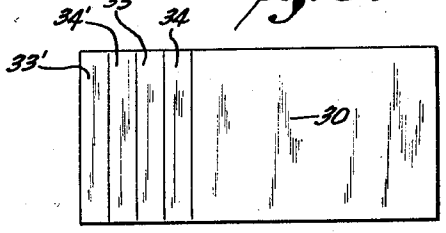


Fig. 11.

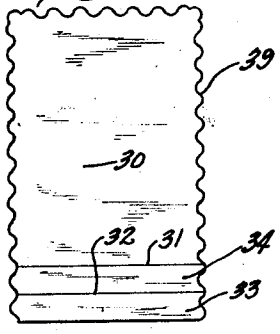
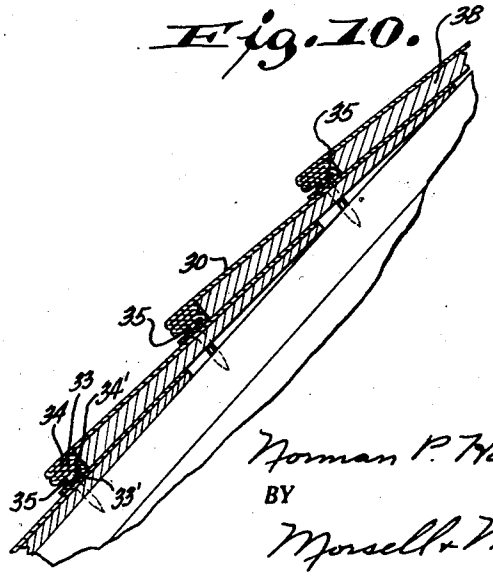


Fig. 10.



INVENTOR.
Norman P. Harshberger
BY
Morsell & Morsell
ATTORNEYS.

Nov. 1, 1932. N. P. HARSHBERGER 1,885,346

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Fig. 12.

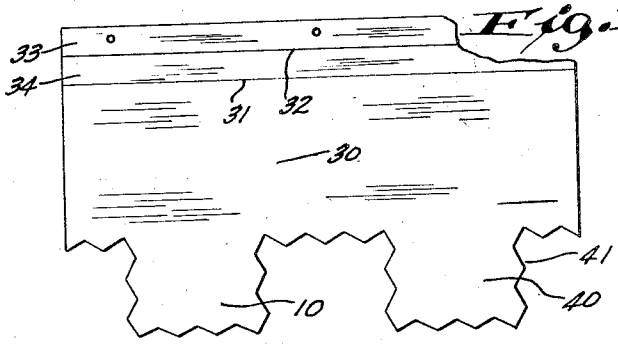


Fig. 16.

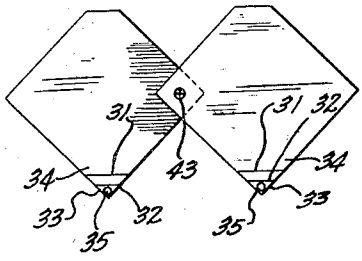


Fig. 13.

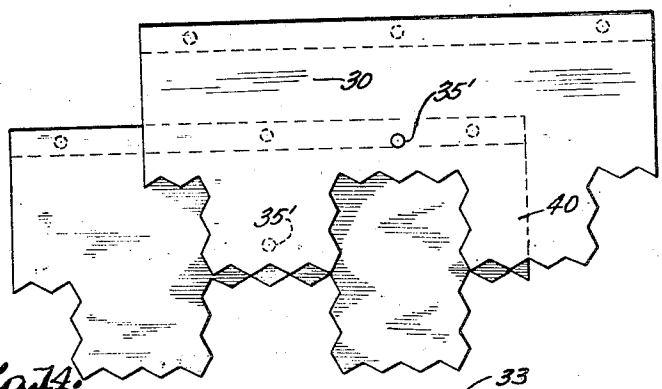


Fig. 14.

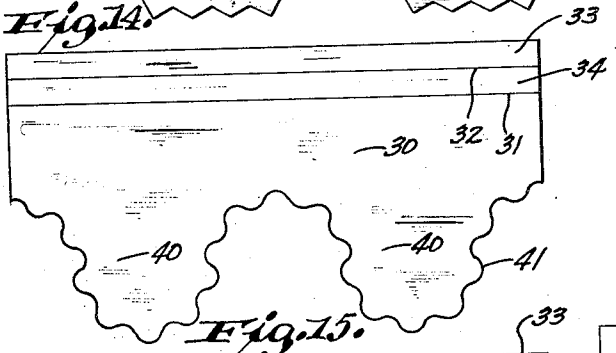


Fig. 17.

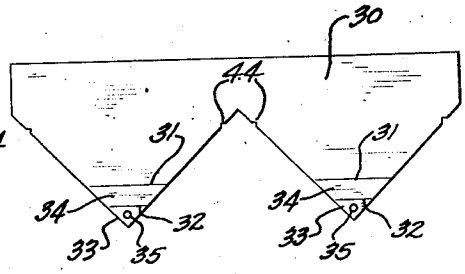
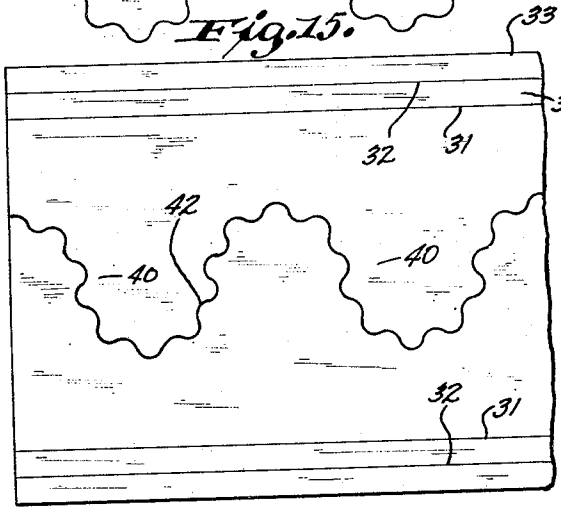


Fig. 15.



INVENTOR.

Norman P. Harshberger

BY

Morsell & Morsell

ATTORNEYS.

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SHINGLE ELEMENT

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Fig. 18.

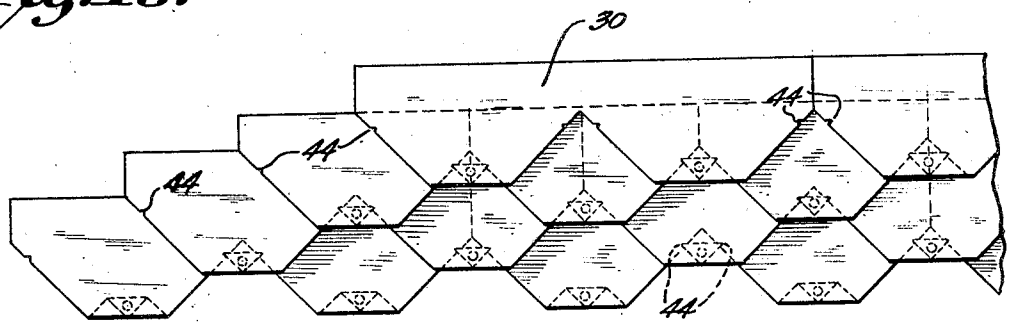


Fig. 20.

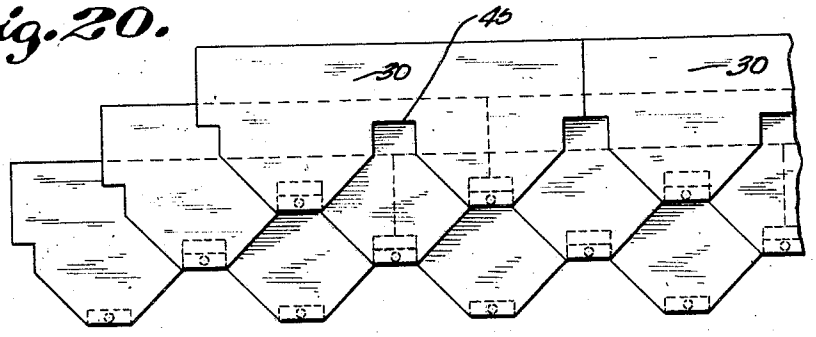


Fig. 21.

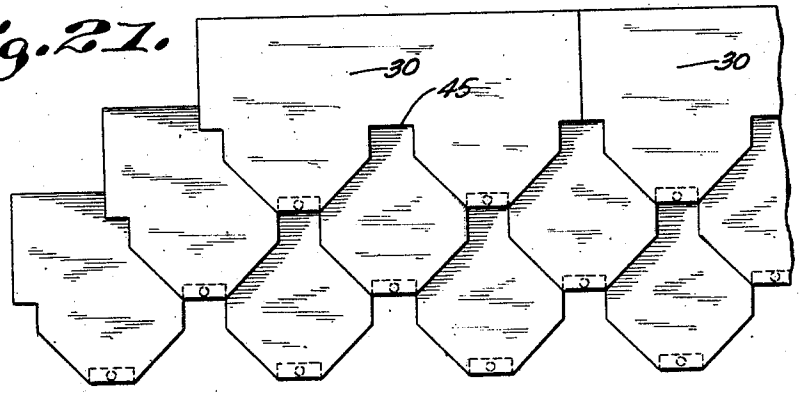


Fig. 19.

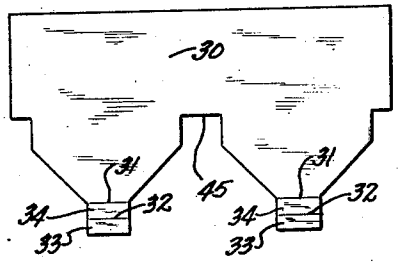
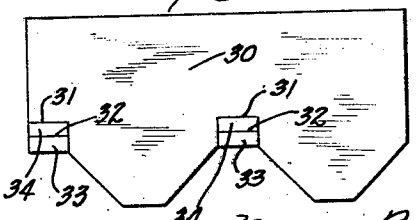


Fig. 22.



INVENTOR.

Norman P. Harshberger

By Morsell & Morsell

ATTORNEYS.

Patented Nov. 1, 1932 1,885,346

UNITED STATES PATENT OFFICE

NORMAN P. HARSHBERGER, OF SCARSDALE, NEW YORK

SHINGLE ELEMENT

Application filed September 24, 1930. Serial No. 484,077.

This invention relates to improvements in shingle elements.

Heretofore various types of shingle elements have been formed with an edge, usually at the lower portion of the shingle, which is foldable beneath the body and which is adapted to receive nails to hold the shingle in position, the heads of said nails being protected and covered over by the body portion. Where only a single fold is used, however, it is necessary in laying the shingles, to first place them on the roof wrong side up so that the nails may be inserted in the foldable portion, and then to flop the entire body over to cover the folded portion and nails therein. This method of procedure is troublesome, and complicates the laying of the roof.

It is, therefore, one of the objects of this invention to provide improved shingle elements having two foldable portions, or a multiple thereof, adjacent an edge, so that nails may be inserted in the lowermost foldable portion and covered over while the body of the shingle is maintained with its right side up at all times.

A further object of this invention is to provide improved shingle elements in which the edges incorporating folds are held in a raised position to create distinctive shadow effects.

A further object of this invention is to provide improved shingle elements which are simple in construction, attractive in appearance, and well adapted for effectively covering and protecting a roof.

With the above and other objects in view, the invention consists of the improved shingle elements and parts and combinations thereof, as set forth in the claims, and all equivalents thereof.

In the accompanying drawings in which the same reference numerals designate the same parts in all of the views:

Fig. 1 is a plan view showing a group of rectangular shingles as assembled, the upper shingle being shown in a position prior to being folded down over the nails;

Fig. 2 is a plan view of one of said elements;

Fig. 3 is an enlarged fragmentary sectional view taken on line 3—3 of Fig. 1;

Fig. 4 is a plan view of a shingle showing a slight modification;

Fig. 5 is a plan view of an assembly of a group of the shingles of Fig. 6, parts being broken away;

Fig. 6 is a plan view of a shingle embodying an additional modification;

Fig. 7 is a plan view showing an assembly of a group of shingles embodying an additional modification;

Fig. 8 is a plan view of one of said shingles;

Fig. 9 is a plan view of a shingle showing the use of four folds;

Fig. 10 is a sectional view taken through a roof showing an assembly of a plurality of the shingles of Fig. 9;

Fig. 11 is a plan view of an additional modified form of shingle;

Fig. 12 is a plan view of still another modification;

Fig. 13 is a plan view showing an assembly of a pair of the shingles of Fig. 12;

Fig. 14 is a plan view of still another form of shingle;

Fig. 15 is a plan view of a blank showing the method of cutting out the shingles of Fig. 14;

Fig. 16 is a plan view showing a pair of connected elements forming another modification of the invention;

Fig. 17 is a plan view of another modification of the invention;

Fig. 18 is a plan view showing an assembly of a group of shingles of Fig. 17;

Fig. 19 is a plan view of another modified shingle;

Fig. 20 is a plan view showing one manner of assembling the shingles of Fig. 19;

Fig. 21 is a plan view showing another manner of assembling the shingles of Fig. 19; and

Fig. 22 is a plan view illustrating another slight modification.

Referring to Figs. 1 to 6 inclusive, the improved shingle comprises a body portion 30 which is preferably rectangular in shape and which has its lower portion scored for folding along the lines 31 and 32 to form foldable portions 33 and 34. The shingles are preferably assembled as shown in Fig.

1, in rows extending up and down the roof, the sides of one row overlapping rows of each side. In securing each individual shingle in position the shingle is placed right side up on the roof, in the position of the upper shingle in Fig. 1, and nails 35 are driven through the foldable portion 33 and through the rows of shingles of each side. Next, the shingle is gripped adjacent the fold 31 and said fold is pulled downwardly into registration with the lower edge of the foldable portion 33, the portion 34 covering over the nails 35 as shown in Figs. 1 and 3. The nail heads are thus protected and covered over and at the same time the line of fold 31 naturally projects upwardly a distance, creating a shadow effect.

The shingle shown in Fig. 4 is identical in construction except that slots 36 are cut inwardly from the side edges along the line of fold 32. This type of shingle is assembled in much the same manner as the shingle of Fig. 2 except that the side edges of shingles in adjacent rows are received by the slots 36.

The shingle illustrated in Fig. 6 is also of similar construction. However, instead of employing slots 36 the entire lower corners are cut out as at 37. If desired, the upper edge of the shingle may be constructed in a similar manner to render it readily reversible. This type of shingle is assembled as shown in Fig. 5 with adjacent edges spaced apart a distance equal to the width of the foldable portion 33.

In Fig. 8 another shingle of very similar construction is illustrated. This shingle, however, is adapted to be laid with its long sides parallel to the eaves and it is further provided with a locking slit 38 in one side which is adapted to engage the upper fold of a row below as shown in Fig. 7.

In Fig. 9 another shingle similar to that illustrated in Fig. 2 is shown. This shingle, however, instead of having only two foldable portions 34 and 33 has additional ones 34′ and 33′. This type of shingle is assembled as shown in Fig. 12 with the nails 35 extending through the lowermost foldable portion 33′. By having a multiplicity of folds the projecting lower edge of each element is raised up considerably and is rendered relatively prominent. With this type of construction it is preferred to use filler blocks 38 which taper upwardly. It is also possible to lay elements of the type shown in Fig. 9 over old wooden shingles on a roof, bringing the inner edges of the foldable portions adjacent the lower edge of each wood shingle.

In Fig. 11 another shingle of the type shown in Fig. is illustrated. This shingle, however, is rendered more ornamental in view of the fact that its edges are scalloped as at 39.

In Figs. 12 and 14 a shingle 30 having tabs 40 is illustrated. Said shingles are preferably formed with scalloped or cut lower edges 41. The shingles are further formed with their upper edges having the foldable portions 33 and 34 and are adapted to be laid as shown in Fig. 13 with nails extending through the foldable portion 33. Additional nails 35′ may be used to hold the lower edges down. This type of shingle may be cut from a blank as shown in Fig. 15, opposite edges being scored as at 31 and 32 to produce the folds and the web being cut longitudinally on an intermediate wavy line 42.

In Fig. 16 diamond-shaped shingles are illustrated. Said shingles have one lower corner provided with the foldable portions 33 and 34, the portion 34 being adapted to receive the usual nail 35. This type of shingle is laid in the usual manner, the foldable portion 34 being brought down to cover over the nail. This type of shingle may also be furnished in pairs as shown, each shingle of a pair being riveted together as at 43. When this type of shingle is shipped one element of each pair may be swung around into approximate registration with the other element to conserve space.

In Fig. 17 a shingle having diamond-shaped spaced-apart tabs is shown. Each of said tabs has its lower end formed with the foldable portions 33 and 34. This type of element may also have the sides of the tabs formed with notches 44. The shingles of Fig. 17 are assembled as shown in Fig. 18, the portion 33 having its sides engaging the notches 44 of a shingle below and the portion 34 being folded thereover to protect the nail 35.

In Fig. 19 another type of shingle having tabs is illustrated. The said tabs have their lower ends provided with the foldable portions 33 and 34 and the material forming said foldable portions is cut from between the tabs of a row on the other side of the blank to form a rectangular recess 45 between each of the tabs. In assembly, the shingles may be assembled with the lower edge of the foldable portion covering over the recess 45 as shown in Fig. 20 to form a plurality of hexagonal figures or they may be assembled as shown in Fig. 21 with the lower edge of the foldable portion in registration with the upper edge of the recess 45 to expose said recess and to vary the shape of the figure produced on the roof.

If desired, the foldable portions may be formed between the tabs as shown in Fig. 22, the foldable portion 33 being adapted to receive nails and the portion 34 being adapted to cover said nails. When this type of shingle is assembled, figures similar to that shown in Fig. 21 are produced.

From the foregoing description it may be seen that a plurality of different types of shingles have been provided which may be readily asembled and which embody foldable

portions for receiving and protecting nail heads, the protection thus afforded eliminating the danger of rain or snow working into the holes caused by said nails. The construction further securely holds the lower or projecting edges of shingles down so that they will not be blown upwardly by wind.

Although the building elements which have been shown and described are more particularly adapted for roofing, they may also be used for siding or other like purposes. It is further to be understood that the various features of this invention may be embodied in roll type roofing and siding, as well as in the strip or individual types shown. The dimensions of the body may also be changed as desired to provide for varied thicknesses in assembly and to vary the quantity of material necessary to cover the standard roofing unit of 100 square feet.

What I claim is:

1. A shingle comprising a body of composition material, a section of material adjoining said body and foldable therebeneath, and a second section adjoining said first section and foldable below the latter, said second section having its free edge positionable adjacent the edge of the body and providing for the insertion of nails or the like therethrough, and said first section being positionable over said second section to cover the latter and said nails.

2. A shingle comprising a body of composition material, a section of material adjoining a lower edge of said body and foldable therebeneath, and a second section adjoining said first section and foldable below the latter, said second section having its free edge positionable adjacent the edge of the body and providing for the insertion of nails or the like therethrough, and said first section being positionable over said second section to cover the latter and said nails.

3. A shingle comprising a body of composition material, a section of material adjoining an edge of said body and foldable therebeneath, and a second section adjoining said first section and foldable below the latter, said second section having its free edge positionable adjacent the edge of the body and providing for the insertion of nails or the like therethrough and said first section being positionable over said second section to cover the latter and said nails, one of said foldable portions having a cut extending inwardly from a side edge for receiving an edge of a like shingle in an adjacent row.

4. A shingle comprising a body of composition material, a section of material adjoining an edge of said body and foldable therebeneath, and a second section adjoining said first section and foldable below the latter, said second section having its free edge positionable adjacent the edge of the body and providing for the insertion of nails or the like therethrough, and said first section being positionable over said second section to cover the latter and said nails, one of said foldable portions having a cut extending inwardly from each side edge for receiving an edge of a like shingle in an adjacent row.

5. A shingle comprising a body of composition material, and an even number of relatively narrow sections foldable one on another beneath an edge of said body, the upper one of said sections being foldably connected with said edge of the body and the lower one of said sections being accessible for nailing while the body of the shingle is right side up.

6. A shingle comprising a body portion having a plurality of sections of material adjoining an edge thereof and foldable one on another beneath said edge, another edge of the body being provided with a cut for engagement with the folded edge of a like shingle in an adjacent course.

7. A shingle comprising a body portion having a plurality of sections of material adjoining an edge thereof and foldable one on another beneath said edge, another edge of the body being provided with an angularly extending slit for engagement with the folded edge of a like shingle in an adjacent course.

8. A shingle comprising a body portion having a tab projecting therefrom, and a plurality of sections of material adjoining the lower end of said tab and foldable one on another beneath said end, the lowermost of said sections being accessible for nailing while the body of the shingle is right side up.

9. A shingle comprising a body portion having its lower edge formed with a plurality of alternating tabs and spaces, and a plurality of sections of material adjoining the lower end of each tab and foldable one on another beneath said end, said shingles being positionable one on another with the lower ends of the tabs of one shingle adjacent the inner portions of the spaces of a shingle below, the lowermost of the foldable sections beneath the tab ends being accessible for nailing while the body of the shingle is right side up.

In testimony whereof, I affix my signature.

NORMAN P. HARSHBERGER.