Sept. 24, 1929. A. C. FISCHER 1,729,212

OBLIQUE SHINGLE SLAB

Filed Sept. 17, 1921 4 Sheets-Sheet 1

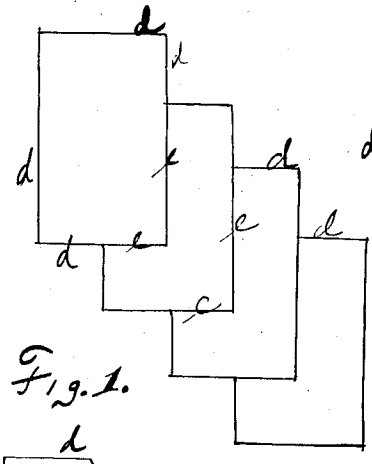


Fig. 1.

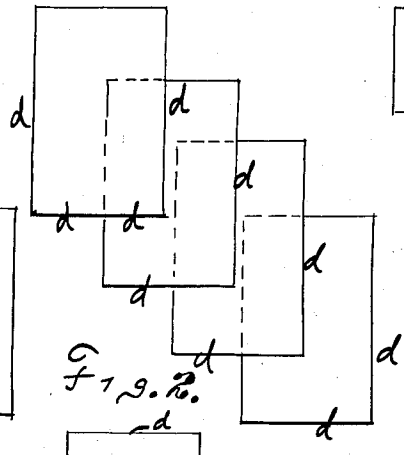


Fig. 2.

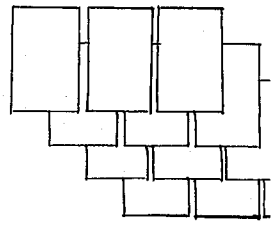


Fig. 3.

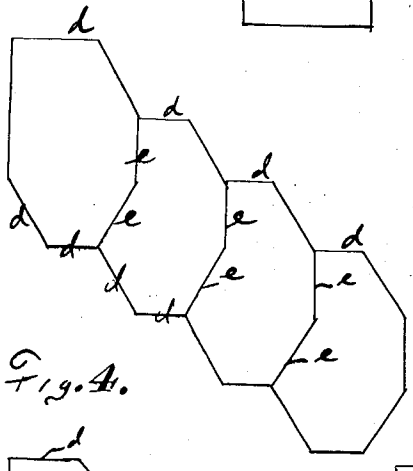


Fig. 4.

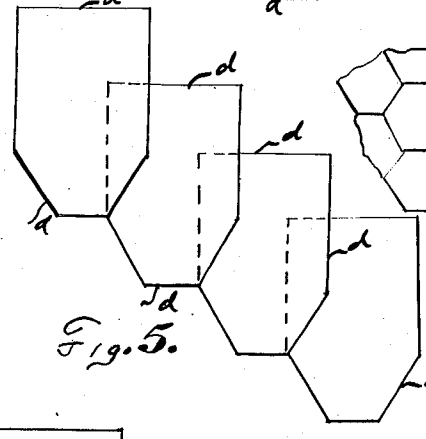


Fig. 5.

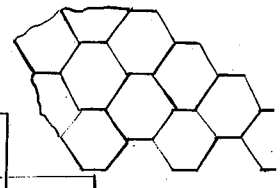


Fig. 6.

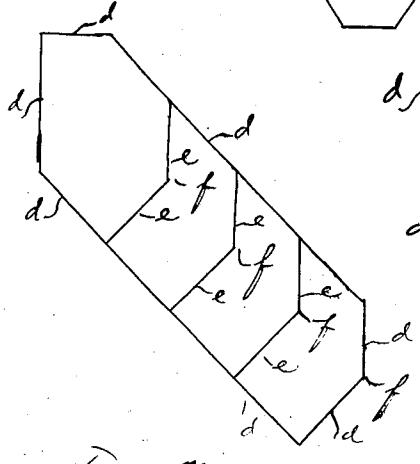


Fig. 7.

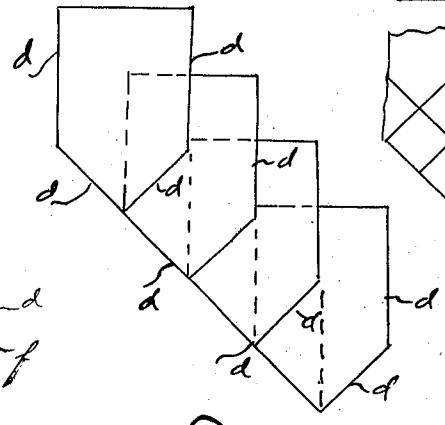


Fig. 8.

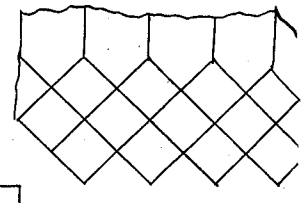


Fig. 9.

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Sept. 24, 1929. A. C. FISCHER 1,729,212

OBLIQUE SHINGLE SLAB

Filed Sept. 17, 1921 4 Sheets-Sheet 2

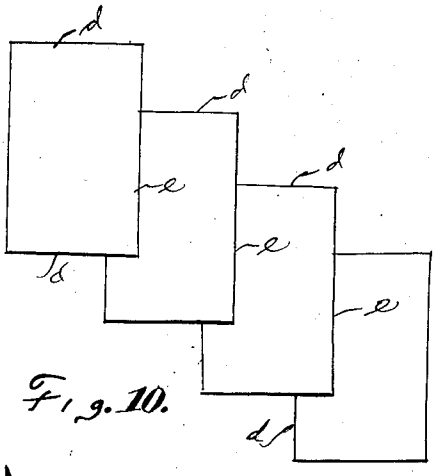


Fig. 10.

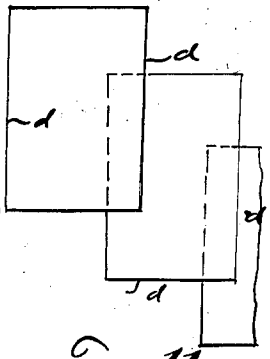


Fig. 11.

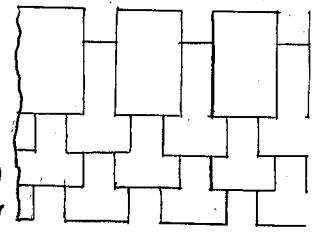


Fig. 12.

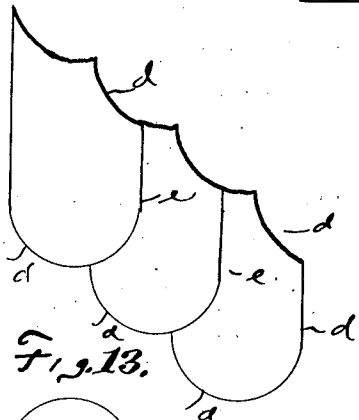


Fig. 13.

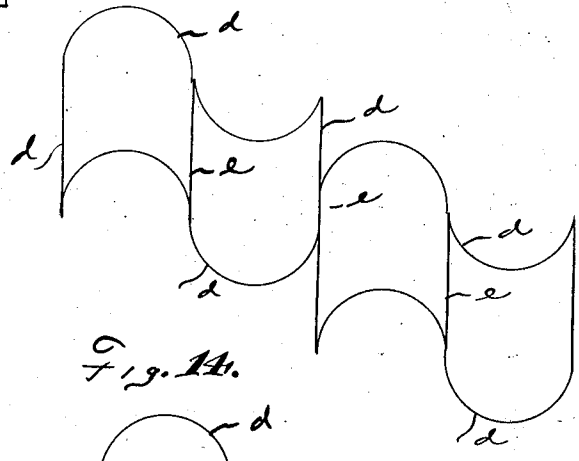


Fig. 14.

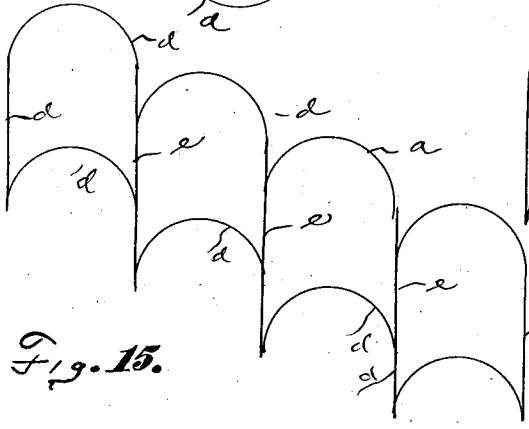


Fig. 15.

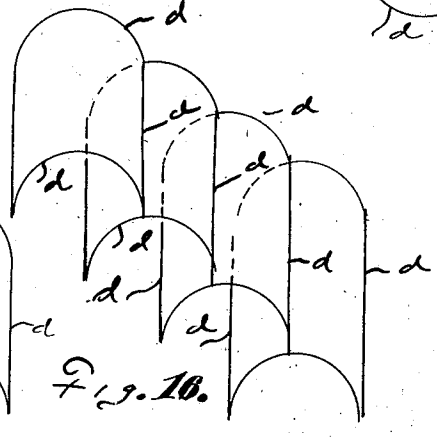


Fig. 16.

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Sept. 24, 1929. A. C. FISCHER 1,729,212

OBLIQUE SHINGLE SLAB

Filed Sept. 17, 1921 4 Sheets-Sheet 3

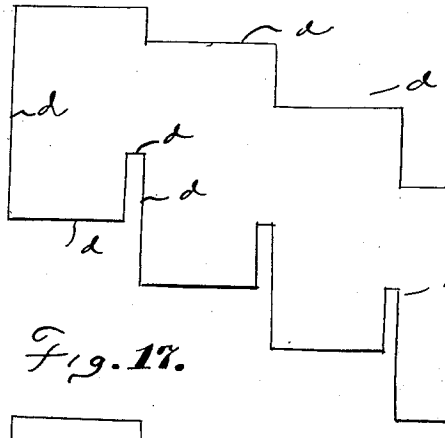


Fig. 17.

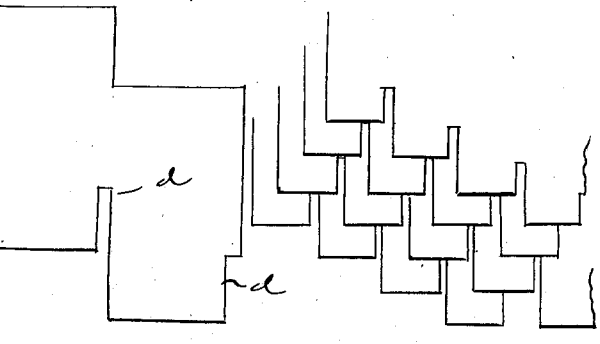


Fig. 18.

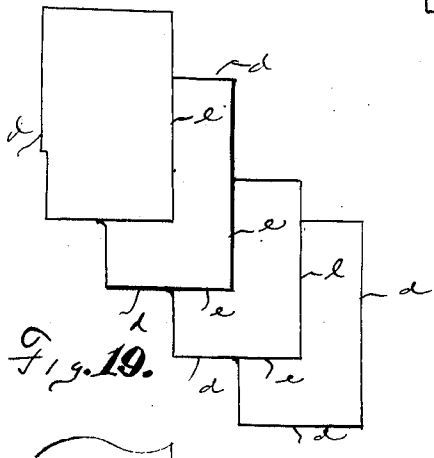


Fig. 19.

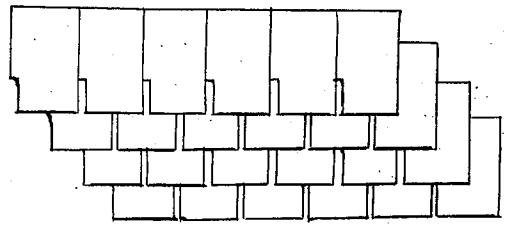


Fig. 20.

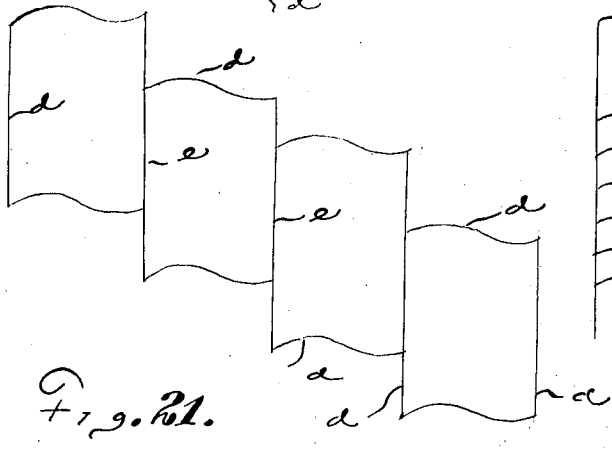


Fig. 21.

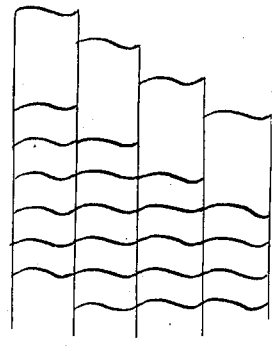


Fig. 22.

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OBLIQUE SHINGLE SLAB

Filed Sept. 17, 1921 4 Sheets-Sheet 4

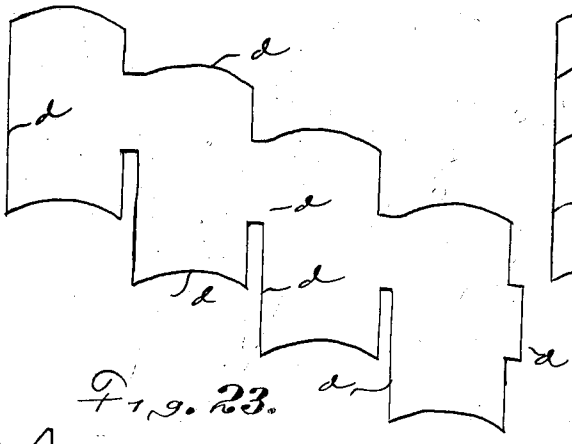


Fig. 23.

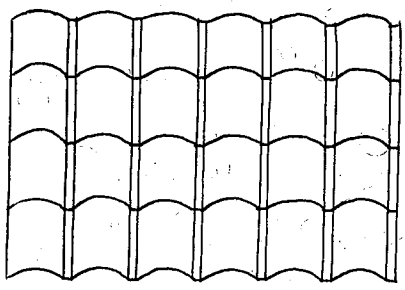


Fig. 24.

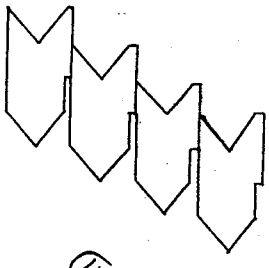


Fig. 25

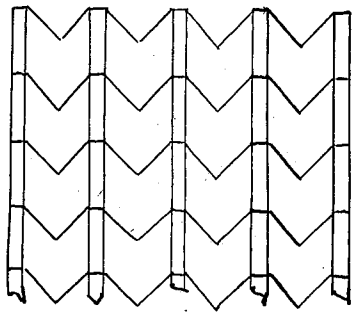


Fig. 26.

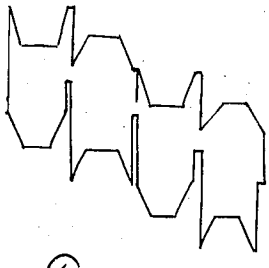


Fig. 27.

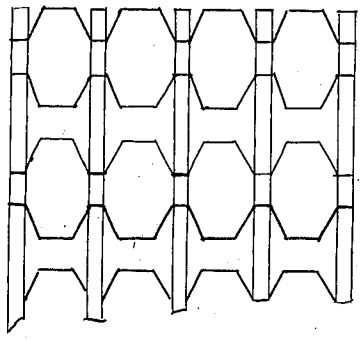


Fig. 28.

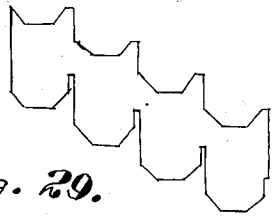


Fig. 29.

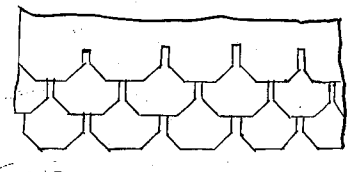


Fig. 30.

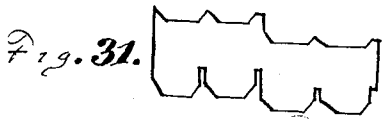


Fig. 31.

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Patented Sept. 24, 1929 1,729,212

UNITED STATES PATENT OFFICE

ALBERT C. FISCHER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE PHILIP CAREY MANUFACTURING COMPANY, A CORPORATION OF OHIO

OBLIQUE SHINGLE SLAB

Application filed September 17, 1921. Serial No. 501,443.

Heretofore, pattern designs for shingles were made in multiple units called multi-shingles. The units had been cut from the roofing sheets so that the slab when applied is laid in a horizontal plane parallel with the eaves of the roof, with all tab ends uniformly cut, simulating individual shingle tabs or exposed surfaces and laid in such a manner that succeeding rows left exposed only the tab ends of the multi-shingle slab. All these designs produced by the exposed tab ends so far produced require being spaced apart by measuring or gauging from the edge of the preceding tab ends. It is also necessary, where laid in this manner, to have free tab ends, which ends have a tendency to curl at the corners, inasmuch as there are no means of fastening due to the necessity of providing for expansion and contraction. They have the same tendency to curl as individual shingles.

My invention provides a novel method of cutting slabs from sheets or combining individual cut patterns so that the edge or side of the shingle is either a part of the body of the slab or is adhesively secured to another shingle in offset relation, leaving only one tab end free, thus minimizing the curling hazard and preventing the possibility of blowing up in the wind, which reduces the amount of moisture gathering, after heavy rains, under the shingle tab end.

In fabricating the shingles in this manner they are also self-spacing vertically, as well as horizontally due to variety in design. The slab designs are so cut that part of the tab end is formed by cutting the pattern part way and completing the pattern with marked lines, which may be placed on the slab by printing, embossing, heating or any other method which may be found suitable in order to make the markings weatherproof and lasting. In some of the slabs a part of the design is created by the cut-out pattern of adjacent slabs, depending upon the marked part of the design to complete the pattern. These slabs are cut so that when laid they are placed obliquely on the roof. The tab ends are arranged along an oblique line in steplike relation so that each succeeding tab along an oblique line becomes a unit or partial unit of a succession or series in a horizontal line. If there are four tab ends in the multiple shingle slab, then there will be a shingle tab in each of the four successive tiers or layers of shingle tabs, in horizontal formation, the shingle slab being laid in an oblique formation.

Where individual patterns are to be adherently secured and formed in offset relation into multiple shingle slabs as in Figure 2 of the drawings, the individual units are mounted in offset relation so that the outline of the tab end forms the necessary pattern to complete the design started by an adjacent slab; that is, instead of depending upon the markings described in the slab the cut outline of the various units is depended upon to complete the design. These shingles are fastened to each other in such a manner as to make a permanent union and are offset from each other in steplike formation along an oblique line. In this manner each unit so mounted acts as a surfacing or exposed portion and the other parts acts as the base of the succeeding offset shingle unit. As stated before in this case, all lines of the shingle tabs are cut and no markings are necessary.

While this description of the fabrication and formation of multiple shingle slabs and offset shingle slabs is given, I do not wish to be limited in any way to the methods as outlined, as other methods, such as scoring, etc., may be used for marking and different methods may be devised for mounting. Nor do I wish to be limited in design or structure as the underlying principle is capable of many modifications and varying designs.

My invention can be better understood by referring to the following drawings, of which—

Figures 1, 2 and 3, respectively, show an embodiment of the invention produced from a single piece of material, an embodiment of similar appearance produced from superposed pieces of material adhered together, and a section of roofing produced by either of said embodiments;

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Figures 4, 5 and 6 are views corresponding respectively to Figures 1, 2 and 3, in which lines defining the exposed portion of the slab are modified to produce a different design in the roof;

Figures 7, 8 and 9 are views corresponding to Figures 1, 2 and 3 showing still another design in which straight lines are employed for defining the margins of the exposed portions of the slabs, while lines developed upon the face of the slab are relied upon for producing still another design in the roof;

Figures 10, 11 and 12 are views corresponding to Figures 1, 2 and 3 and in which substantially the same units are employed but in different spacing, which results in a different roof design;

Figures 13 to 16 are further illustrations of designs that may be produced, in accordance with the present invention;

Figures 17 and 18, respectively, illustrate the design of slab employing reentrant cuts or spaces normal to the roof lines but at an angle to the longitudinal axis of the slab, and also the appearance developed upon the roof by the use of a slab of this kind;

Figures 19 and 20 are views, respectively, showing a slab and the roof appearance developed thereby, in which slab recesses which simulate shingle spaces in the assembly of several of such slabs, are made in margins which are vertical to the roof when the slab is in place;

Figures 21 and 22 are views, respectively, showing a design of slab and the effect of a group thereof, in which edges transverse to the vertical, when the slab is in use, are given a wavy effect for the purpose of developing serpentine lines in the roof;

Figures 23 and 24 are views, corresponding, respectively, to Figures 17 and 18, Figure 23 showing a modification in the form of the lower ends of the tabs, and Figure 24 showing a roof effect developed therefrom when the tabs are superposed with their reentrant cuts or tab spaces arranged in vertical alignment;

Figures 25 and 26 are views, respectively, showing a single slab and a group of slabs upon a roof, in which the tab is still further modified in form, but in which the roof effect is produced by superposing slabs with their reentrant tab spaces in vertical alignment;

Figures 27 and 28 are views, respectively, corresponding to Figures 25 and 26 but with still further modification in design and with corresponding grouping upon the roof; and

Figures 29 and 30 are, respectively, views showing a slab of tabs or units of still another design in the appearance thereof grouped upon the roof; and

Figure 31 shows a slight modification of the design illustrated in Figure 29.

Figure 1 illustrates an oblique slab multi-shingle composed of cut edges as at *d* and marked pattern design as at *e*. The edges shown at *d* are also cut out due to the previous oblique pattern having been severed along these lines. In this case a single thickness of roofing material can be utilized, forming a single slab, giving the same offset appearance as would be obtained if the individual shingles forming the multiple unit were actually made to offset each other in the manner shown.

In Figure 2 the slab is composed of individual shingle units mounted in offset relation formed in an oblique line mounted in a step-like relation. In this case the lines *d* are all cut edges and the individual units are cemented by asphalt or any other suitable binding material. When an adjacent pattern is laid against this shingle a half inch space is permitted within the upper shingles of the slab, which spaces the balance of the shingles of the group an equal distance automatically.

Figure 3 illustrates a roof covering formed from a series of slabs (Figs. 1 and 2) laid in overlying and underlying courses, said slabs being spaced to simulate individual shingles.

Figure 4 illustrates a hexagon pattern in a slab, showing the lines *d* as being cut patterns and the lines *e* as being marked patterns, the marked lines to be utilized with the cut lines in, simulating a hexagon design.

In Figure 5 the slab or multi-shingle is composed of individual units mounted in offset relation and adherently secured together, lines *d* being cut lines, there being no marked lines in the patterns. These units are laid in overlapped relation in such a manner that the lower lines *d* form the lower and upper lines of the pattern while the lines *e* simulate the marked lines of the pattern.

Figure 6 illustrates the hexagon pattern formed by utilizing Figures 4 and 5.

Figure 7 illustrates an oblique shingle slab having cut lines as at *d* and marked lines as at *e*. The adjacent slab, in overlapped relation, completes the design when laid so that its lower cut line *d* forms the upper line of the diamond figure, and the marked lines *e* of the adjacent slab extend upwardly from the point of intersection *f*.

Figure 8 illustrates diamond shaped units mounted in offset relation, the lines shown as *d* being cut lines so that when an adjacent slab is abutted against a previously laid slab the lower lines of the adjacent slab complete the design of the lower slab.

Figure 9 illustrates the diamond design secured by utilization of patterns 7 and 8.

In Figure 10, *d* represents the cut lines and *e* represents the marked lines. The markings in this design are so arranged as to secure an inverted T design when laid. It consists of what is known as a standard individual unit shingle.

Figure 11 illustrates the same design pro-

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duced by assembly of individual shingles in offset relation.

Figure 12 illustrates the design secured by laying the slabs of Figures 10 and 11 upon the roof.

Figure 13 illustrates a slab in which a rounded design is secured by cut out and marked lines.

Figure 14 illustrates an imitation tile design.

Figure 15 illustrates a tile design in slab formation.

Figure 16 illustrates a tile design produced by assembling individual shingles in offset relation and wherein the tile units alternate in their relation.

Figure 17 illustrates a slab design in which *d* represents the cut lines. As can be readily seen all marked lines have been replaced by slots indenting the edge of the shingle to the points where the units of the adjacent slab join in steplike formation. In this manner of cutting the markings are not depended upon to complete the design. The slab as shown in Figure 17 can also be made up of individual units spaced in offset relation.

Figure 18 illustrates the pendantlike arrangement secured upon the roof by the use of the slab shown in Figure 17.

Figure 19 illustrates a slab in which the lines *d* are cut lines and the lines *e* illustrate the marked lines. These shingles can also be formed in offset relation into slab units in the same manner as the other patterns. The further indenture allows for an automatic spacing of the units, making the oblique shingle slabs self-spacing in all directions.

Figure 20 illustrates the appearance on the roof of the slab shown in Figure 19.

Figure 21 illustrates another slab design showing a tile effect in which *d* represents the cut lines and *e* represents the marked lines.

Figure 22 illustrates a design secured by utilizing the slab shown in Figure 21.

Figure 23 illustrates a slab formation in which *d* represents cut lines and in which all marked lines have been eliminated. The individual units may be mounted in offset relation as in other figures shown.

Figure 24 illustrates the design secured by utilizing the slab shown in Figure 23.

Figure 25 illustrates a diamond pointed slab in which *d* represents the cut line, the marked lines being eliminated.

Figure 26 illustrates the design secured when utilizing Figure 25.

Figure 27 illustrates a slab design composed entirely of cut lines which, when mounted upon the roof, create the design shown in Figure 28, namely a hexagon effect with dividing lines.

It can be readily understood from the numerous illustrations made, the far reaching possibilities in the oblique construction of shingle slabs whether fabricated out of the individual piece or whether fabricated from individual units mounted obliquely in steplike formation offset one from the other. I therefore do not wish to be limited in the design or in the direction the oblique line may take, as the principle underlying this construction is unique and capable of many variations beyond those shown. Neither do I wish to be limited in the material utilized in the fabrication of the shingles or slabs shown and described as the patterns permit of the utilization of rigid material, as well as flexible material.

Figure 29 represents a slab having individual tabs or units in oblique or step-like arrangement, and adapted to produce when assembled on the roof, as shown in Figure 30, an Italian tile design. As illustrated in Figure 31, which shows twin tabs in oblique or step-like arrangement, the tabs at each step or stage may be more than one.

I claim:

1. A shingle slab adapted to be placed upon a building structure in a position diagonal to vertical and horizontal lines of the structure, said slab being designed to simulate a series of laterally lapped and vertically offset shingle elements, each having its lower weathering portion defined in part by the outline of the slab and in part by lines overlying the adjacent shingle element.

2. In surfacing material for building structures, a plurality of series of slabs, each slab simulating a plurality of shingle elements laterally related and vertically offset one to another so as to present the longitudinal axis of the slab in a diagonal direction when the shingle elements are normal to vertical and horizontal lines of the building structure; the slabs in a series being placed in said diagonal line and those of one series being related laterally to those of another series; individual shingle tabs of the several slabs being defined in part by the outline of the slab and in part by lines overlying adjacent shingle elements to simulate a lapped appearance with the individual shingle elements.

3. Surfacing material comprising shingle slabs arranged obliquely in overlapping relation upon the structure to be covered, each of said slabs having a plurality of shingle portions disposed diagonally of the slab and disposed so that substantially equal portions of each shingle are exposed.

4. Surfacing material comprising shingle slabs arranged obliquely in overlapping relation upon the structure to be covered, each of said slabs having a plurality of shingle portions disposed diagonally of the slab and disposed so that the exposed parts of each shingle are identical in size and shape.

5. An integral slab of the character de-

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scribed having its upper and lower border lines arranged in stepped relation and intersected by lines seemingly dividing the slab into a series of separate shingles arranged in overlapping relation and extending diagonally the length of the slab.

6. Surfacing material comprising a plurality of slabs adapted to be lapped one upon another and aligned in a direction at a substantial angle to both vertical and horizontal lines of the structure upon which they are placed, said slabs each having a plurality of diagonally disposed shingle portions arranged so that when the slabs are laid diagonally overlapped, each slab has a series of exposed tab ends extending in diagonally stepped relation longitudinally of the slab, each of the exposed tabs being of equal area.

In testimony whereof I have hereunto signed my name.

ALBERT C. FISCHER.

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