June 3, 1947. G. A. FASOLD ET AL 2,421,415

SHINGLE

Filed Oct. 25, 1944

Fig. 1.

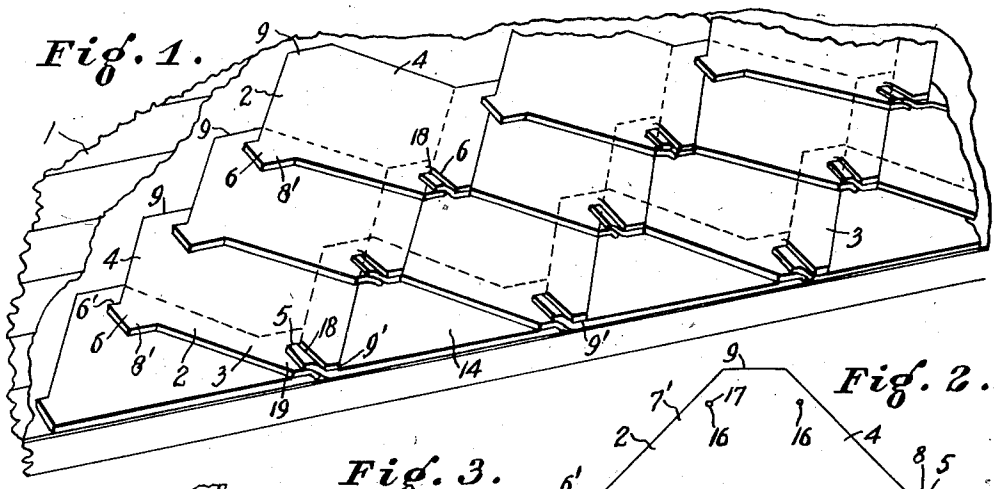


Fig. 2.

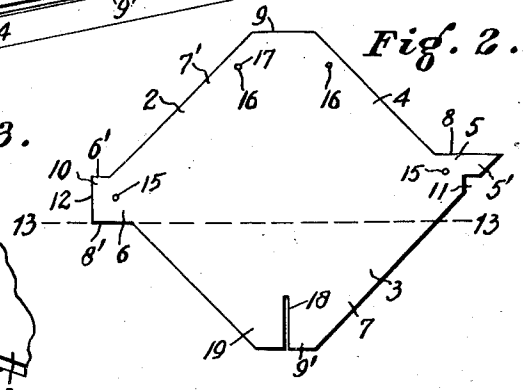


Fig. 3.

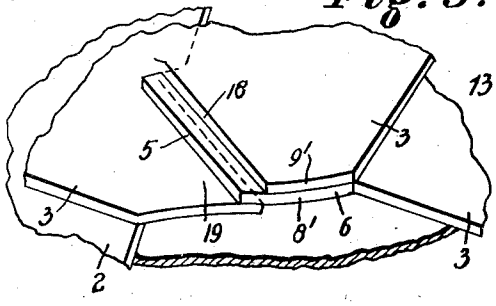


Fig. 4.

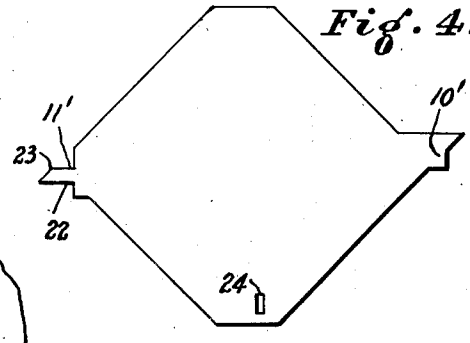


Fig. 5.

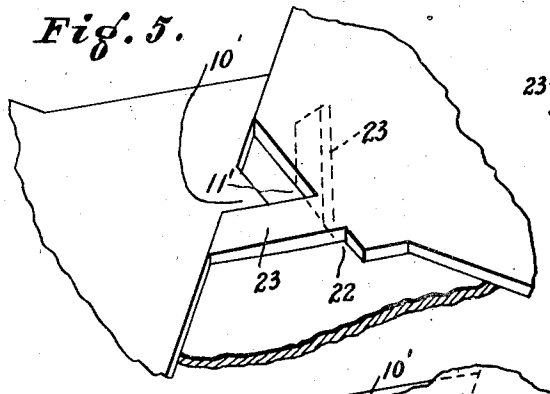
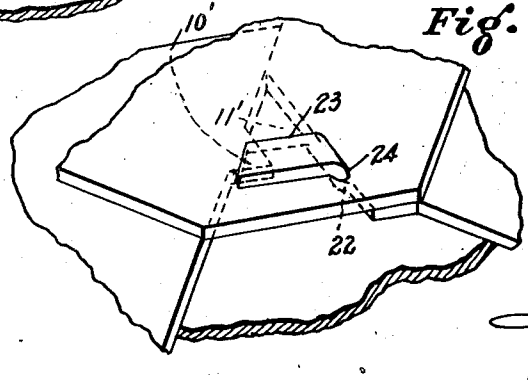


Fig. 6.



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SHINGLE

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6 Claims. (Cl. 108—7)

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This invention relates to a novel and improved weather surface covering and particularly to weather surfacing elements in the form of individual shingles or strips for siding and roofing which are adapted to be laid in overlapping courses to provide a covering symmetrical in design and having the tab portions of shingles in an overlying course locked down and restrained from being lifted in the wind by means of underlying shingles engaging the tabs. The joints between adjacent surfacing elements of each course are formed by abutting edges of adjacent elements having a line contact, said line contact being preferably interrupted by complemental engaging means.

These weather surfacing elements are especially economical in manufacture, both as to the number of square feet of roofing or siding material required to cover any desired area and as to the amount of waste in cutting elements from a sheet. The elements are also self aligning and after being nailed to the roof deck are adapted to have a side portion of an underlying shingle engage the tab portion of an overlying shingle to lock down the tab portion and secure it against being lifted by the wind, without requiring any additional element for locking down the tabs.

The present invention aims to provide a weather surfacing covering which may be expeditiously laid, accurately aligned, and locked down by unskilled workmen, said locking down being effected at the time the elements are laid and with no extra material required for locking down the tabs, this being obtained by a slot formed in the tab portion of the overlying shingle.

For a better understanding of the invention, reference may be made to the accompanying drawings in which:

Fig. 1 is a perspective view of a section of a roof covering comprising courses composed of roofing elements embodying the invention;

Fig. 2 is a plan view of an individual roofing element;

Fig. 3 is a perspective detailed view of a section of overlapping courses; and

Figs. 4, 5 and 6 are views of another embodiment of the invention.

Referring specifically to the drawings in which like numerals are used to designate like parts, numeral 1 designates a roof or siding covering composed of weather surfacing elements 2 which are adapted to be laid in overlapping courses to provide a covering of symmetrical decorative design. Each of the weather surfacing elements

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is provided with a body portion terminating in opposite tab portions 3 and 4, said tab portions being preferably of like design. Intermediately of the tab portions, there are provided on opposite sides ears 5 and 6. One marginal side edge 5' of ear 5 is aligned with a side edge 7 of the tab 3 and the other side of the ear is formed with an edge 8 which is preferably parallel with the tab end 9 of tab 4. Ear 6 is of the same construction in relation to the opposite tab 3, having one side edge 6' aligned or in a common line with the side edge 7' and the other side 8' preferably parallel with tab end 9'.

Accordingly the surface elements are reversible and may be laid with either tab 3 or 4 exposed to the weather. One of the tabs is provided with means, hereinafter described, for being engaged by means of one of the underlying shingles and thus secured against lifting in the wind. Hence, the shingle may be selectively laid to utilize the lock down feature or not, as desired.

Those side edges of the ears aligning with the tab sides may advantageously be provided with any suitable complementary means to enable abutting elements to interengage. A suitable means is typified by a projection 10 formed on ear 6 complemental to a recess 11 formed on the other ear 5, said projection and recess being adapted to interfit when the surfacing elements are laid in courses in abutting relation, thus forming a tightly fitting butted joint between adjacent elements as applied to the foundation or deck. One side edge of projection 10 is preferably flush with side edge 12 of ear 6.

To provide a starting course a desired number of elements to make up the starting course may be cut along the dotted line 13, as shown in Fig. 2, and have the upper pieces applied as the starting course 14 as shown in Fig. 1. The lower piece may be inserted to fill the spaces between adjacent elements of the starter course or may be otherwise disposed of. Alternatively a continuous starter strip of uniform width of similar sheet roofing may be applied. A second course is then applied with the tab ends 9' laid flush with the lower edge of the starting course, and the side 8' of the ear 6 is laid flush with the tab end 9' of the elements in the starting course. Subsequent courses are applied with the weather tab ends 9' flush with the tops of the weather-exposed spaces between adjacent elements, which tops of the spaces are formed by the lower edge 8' of the ears 6 on the elements of the underlying course.

Weather surfacing elements of this construc-

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tion provide a roofing covering which presents an attractive hexagonal pattern and is of such dimensions as to provide sufficient side and head laps in the overlapping courses. The elements are adapted to be readily aligned in horizontal courses without any other marking than that provided by the outlines of the elements themselves. Also secure anchorage of the exposed tabs to prevent lifting in the wind is obtained without retroverting any part of the elements or having any locking clips secured thereto prior to the application of the locking fastener when the elements are laid on the surface to be covered.

While the invention is not limited to any specific proportions of the roofing elements, it has been found suitable to have them constructed so that there will be preferably a 2½" side lap and 3½" vertical or head lap. To effect this the elements are made of such dimensioned proportions that the tab ends are approximately 3½" wide and the horizontal edges of the ears are of the same dimension as the tab ends in order to coincide with the tab ends of overlying elements in the overlying course. It will be seen from the disclosure that a roofing is provided which gives a maximum amount of coverage with a minimum amount or area of roofing material and yet provides sufficient head and side lap in the various courses for adequate resistance to driving rain. Two layers of roofing material are provided in the entire side lap area of the elements. This type of roofing is particularly adapted for resurfacing over old weather layers which are no longer water-tight.

The elements are nailed in place by any number of nails **15**, one being preferably provided in each ear **5** and **6**. These two nails also secure to the deck the non-weather exposed tab of the immediately underlying shingle. Thus each single is secured to the deck by at least four nails, although only two nails per element may be used. Additional nailing means **16** may, if desired, be projected through the elements along the upper edge of the non-exposed tabs at **17**. While the tab ends have been shown to be substantially of lesser dimension than the tab sides, it will be understood that the tab ends may be of greater or equal width, thus permitting variation in the shape of the hexagonal pattern presented by the roof covering as applied. The advantage of having tab ends of considerably less dimension than the tab sides is that they each may be locked down more effectively by a single fastening device rather than requiring two or more. The above dimension of 3½" for the tab end is regarded as preferable, inasmuch as it is of a critical dimension to be adequately secured with the locking means and it also presents a pleasing hexagonal pattern in the roof covering.

One of the tab portions of each shingle is provided with a slot **18** vertically extended from the bottom edge of the tab. The side ear **6** of an underlying shingle is projected through the slot **18** of an overlying shingle and overlies a portion **19** of the tab. The slot may be vertically disposed medially of the tab or to one side of the medial line, depending upon the extent of the portion of the side ear which it is desired to have projected through the slot. Only a small portion of the projection is required to hold down the tab, and thus the slot is preferably such that no more than a small portion of the side projection of the underlying shingle is exposed.

The embodiment in Figs. 4, 5 and 6 does not essentially differ from the embodiment in Fig. 2

insofar as the general design of the shingle is concerned. The complemental interengaging portions on the ears of the shingles are transposed in order that the ear having the recess **11'** may serve to form the lock down projection. This recess on the left hand long side is complemental to the projection **10'** on the opposite long side. Below the recess the ear is cut away at **22**, thereby forming between the cut away part and the recess a narrow projection **23**. A slot or aperture **24** is formed in the tab to be of sufficient width to receive the projection **23**. By omitting the cut away **22**, the projection would be wider and the slot **24** would have to be correspondingly wider to receive the projection. It would then extend down to the tab edge as in Fig. 2.

While preferred embodiments have been described in detail, it will be understood that there may be various changes in construction without departing from the spirit of the invention.

We claim:

1. A roofing element comprising a body having oppositely disposed tab portions, a side extension disposed intermediately of the tabs having one side edge aligned with the edge of one of the tabs and another edge parallel to and equal in width with the end of the weather exposed tab, means on the side extension complementary with means on the opposite side of the element whereby an adjacently laid element of similar construction may be interengaged therewith, and a vertical slot in one of the tabs for receiving the end of the side extension of a lapped element for locking down the slotted tab.

2. A weather covering comprising overlapping courses of roofing elements, each of which comprises a body having oppositely disposed tab portions, a side extension disposed intermediately of the tabs having one side edge aligned with the edge of one of the tabs and another edge parallel to and equal in width with the end of the weather exposed tab, means on the side extension complementary with means on the opposite side of the element whereby an adjacently laid element of similar construction may be interengaged therewith, and a vertical slot in the weather exposed tab through which the end of a side extension of a lapped element is adapted to project.

3. A weather covering comprising overlapping courses of roofing elements, each of which comprises a body having oppositely disposed tab portions, a side extension disposed intermediately of the tabs on each side of the body, each of said side extensions having one side thereof aligned with an edge of one of the tabs and another edge parallel to the ends of the tabs, and a complementary tongue and recess provided on the side extensions, said elements being arranged in the overlapping courses to provide a three layer lap construction in which the non-weather exposed tab of one of the elements is one layer, the interfitting side extensions of two adjacent elements of the first overlapping course are a second layer, and the weather-exposed tab is a third layer, and means for securing the uppermost layer to one of the underlayers comprising one end portion of the lapped element of one layer fitting into vertical slots formed in the roofing elements of the uppermost layer.

4. A weather covering comprising overlapping courses of roofing elements, each of which comprises a body having oppositely disposed tab portions, a side extension disposed intermediately of the tabs on each side of the body, each of said side extensions having one side thereof aligned

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with an edge of one of the tabs and another edge parallel to the ends of the tabs, and a complementary tongue and recess provided on the side extensions, said elements being arranged in the overlapping courses to provide a three layer lap construction in which the non-weather exposed tab of one of the elements is one layer, the interfitting side extensions of two adjacent elements of the first overlapping course are a second layer, nailing means projecting through the side extensions of the roofing elements and concealed beneath the tab of an overlying element, and means for securing the uppermost layer to one of the under layers, said means comprising a vertical slot in an overlying element through which a side portion of an underlying element is adapted to project.

5. A roofing element comprising a body having oppositely disposed tab portions with side edges diverging from a butt edge, side extensions arranged intermediately of the tabs on opposite sides and a slit vertically disposed in the weather exposed tab through which the side end edge of one of the extensions of an underlying element of

a similarly constructed shingle is adapted to be projected for locking down the overlying tab.

6. A roofing element comprising a body having a weather exposed tab having side edges diverging from a butt edge, oppositely disposed side extension and a slit vertically disposed in the weather exposed tab in a position to receive the side end edge of one of the side extensions of an overlying element.

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