Oct. 5, 1926. 1,601,735

W. A. HARRIS

ROOFING SHINGLE

Filed Feb. 27, 1925

Fig. 1

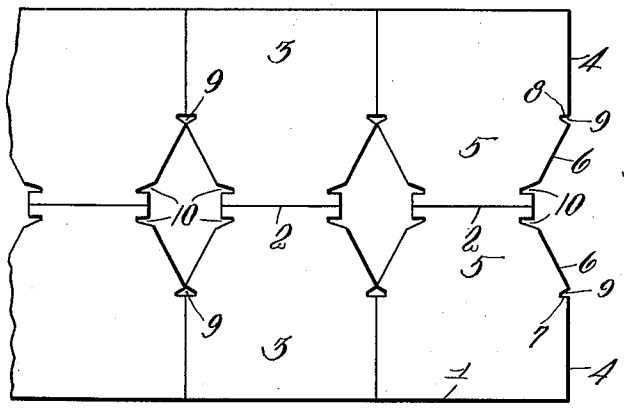


Fig. 2

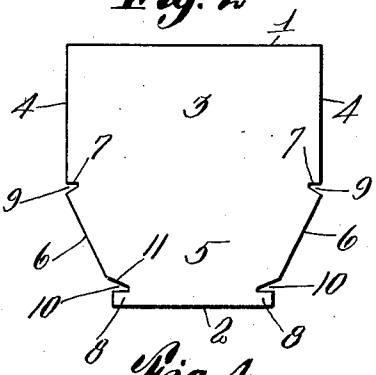


Fig. 3

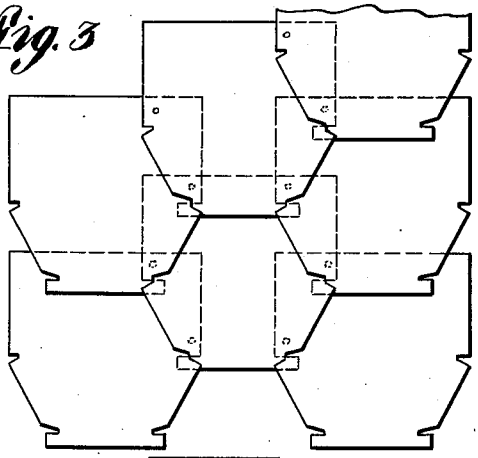


Fig. 4

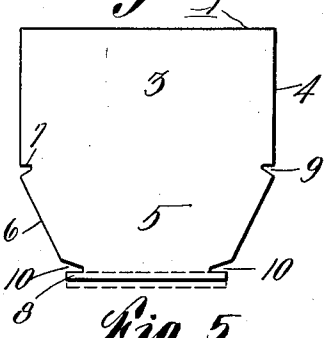


Fig. 5

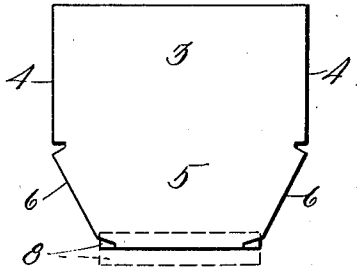


Fig. 8

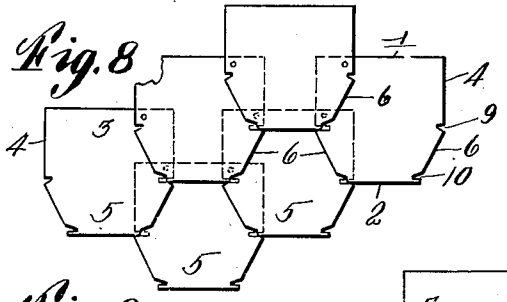


Fig. 7



Fig. 6

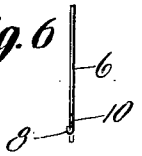
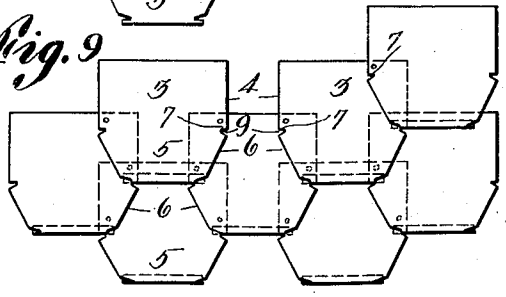


Fig. 9



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UNITED STATES PATENT OFFICE.

WILLIAM A. HARRIS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE FLINTKOTE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

ROOFING SHINGLE.

Application filed February 27, 1925. Serial No. 11,969.

This invention has relation to prepared asphalt shingles, such as produced from a flexible sheet of roofing material. Such material comprises a fibrous body formed of rag or asbestos felt, saturated with asphalt or other waterproofing compound or composition, coated with a layer of relatively high melting point asphalt, such, for example, as blown asphalt, and provided with a surface layer of partially embedded crushed slate or other mineral material of a suitable color.

The object of the invention is to provide shingles which, when laid, may be interlocked with one another to hold the exposed butt portions flat upon the roof which form attractive geometrical designs, and which, with a minimum amount of roofing material will afford a proper coverage for a maximum area of roof surface.

On the acompanying drawings:

Figure 1 shows how shingles embodying the present improvements may be cut from a sheet of roofing material such as hereinbefore described.

Figure 2 represents one of such shingles.

Figure 3 represents the shingles when laid and interlocked.

Figure 4 illustrates a shingle having a doubled under portion at its butt end, on a transverse line intermediate the upper and lower edges of the lateral locking tabs or projections.

Figure 5 represents the shingle in which the doubled under portion is folded on a line substantially coincident with the upper edges of such tabs.

Figures 6 and 7 represent edge views of the lower ends of the shingles shown in Figures 4 and 5.

Figures 8 and 9 respectively represent the appearance of the shingles shown in Figures 4 and 5 when laid and interlocked.

Referring to Figures 1, 2 and 3, the flexible asphalt shingle is shown as provided with parallel top and bottom edges 1, 2, and comprising an upper portion 3 having parallel side edges 4, 4 perpendicular to the edge 1, and a tapering lower portion 5, with downwardly converging side edges 6, 6. At the juncture of the side edges 4 and 6, there are lateral shoulders 7, 7 which define the lower extremities of the upper portion 3, and the upper extremity of the lower portion 5. At the butt end of the lower portion 5 there are laterally projecting locking tabs 8, 8. The shoulders 7 are provided by forming notches 9, and the tabs may similarly be provided by the formation of notches 10.

Shingles thus formed are laid to form a figure having a wider semi-hexagon at its lower portion and a narrow semi-hexagonal upper portion, and the lower ends of the shingles are interlocked with laterally adjacent shingles. Thus Figure 3 shows the shingles so interlocked and laid to form one design. In this case each horizontal row of shingles is laid widely spaced, with the distance between the notches 9, 9 only slightly greater than the width of a shingle between the notches 10, 10 thereof, and the shingles are secured by nails above the notches 9. Each shingle of the second row is similarly laid, by inserting the tabs 8 thereof under the two laterally adjacent shingles of the first row and to engage the shoulders 7, 7 thereof, and causing the remainder of the shingle to overlap the upper marginal side portions of such adjacent shingles; and, when the shingles of the third and the next succeeding rows have been laid, it will be observed that each shingle is interlocked with and laterally overlaps and is overlapped by the laterally adjacent shingles of the preceding and succeeding rows, and longitudinally overlaps the aligned shingle in the second lower row and is similarly overlapped by the shingle of the second higher row. The exposed portions of the shingles form a pleasing geometrical design, which is not a true hexagon but is suggestive thereof. The shoulders and the lateral tabs, after the first or lowest row of shingles has been placed, serve to space and properly align and to interlock the remaining shingles.

The butt end of the tapered portion 5 of the shingle may be folded under to increase the thickness of and to stiffen the lower extremity of the shingle. The under fold may be made by bending the shingle on a line midway between the upper and lower edges of the tabs 8, as shown in Figure 4, or on a line connecting the ends of the notches 10, 10, as shown in Figure 5. The fold may be flat against the under face, and caused to adhere thereto if desired, as

shown in Figure 6, or may be slightly spaced therefrom as shown in Figure 7. In the latter case the tabs may underlie the shoulders 7, 7 of adjacent shingles as shown in Figure 9. and fill the space between the lower end of the shingle and the next lower shingle which is longitudinally aligned therewith. While I do not confine myself to the particular dimensions to be mentioned, I find it advantageous to make the shingles 16 inches long, and 16 inches wide at the upper portion. The edges 4 are 9.5 inches long, and the shoulders 7 ¾ of an inch each, the distance between the ends of the notches 14.5 inches, and the tabs are 1 inch in length. With shingles of these dimensions, 100 square feet of roof surface may be covered by shingles requiring 180 square feet of roofing material (including 17 square feet of waste caused by cutting the shingles as shown in Figure 1).

The shingles may be cut from a sheet of slate-surfaced asphalt roofing material as shown in Figure 1. This causes some waste material, which as hereinbefore indicated is not great. It is immaterial, so far as the present invention is concerned, whether the shingles be cut lengthwise or crosswise of the sheet.

What I claim is:

An asphalt roofing shingle, adapted to be laid widely spaced with others in overlapping interlocking engagement, having parallel top and bottom edges, and comprising an upper portion having parallel side edges, and a lower portion having downwardly converging side edges, there being notches or recesses at the juncture of said side edges forming laterally extending shoulders, and notches at the sides of the lower ends of the shingle forming laterally projecting tabs for interlocking with the first mentioned notches of the like shingles in another row thereof.

In testimony whereof I have affixed my signature.

WILLIAM A. HARRIS.