

F. S. HOWARD.
 ROOFING JOINT.
 APPLICATION FILED DEC. 12, 1910.

993,686.

Patented May 30, 1911.

Fig. 1.

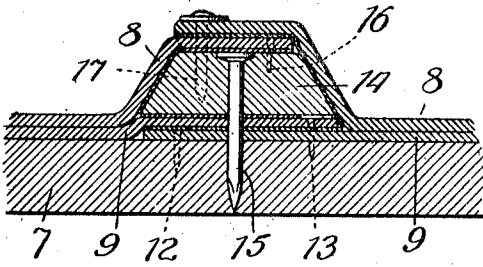


Fig. 2.

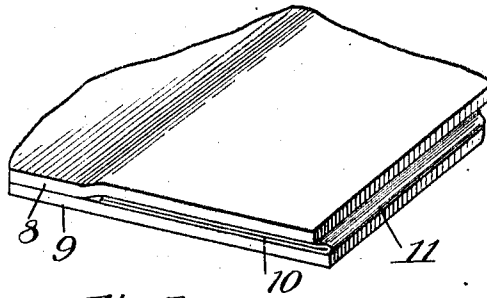


Fig. 3.

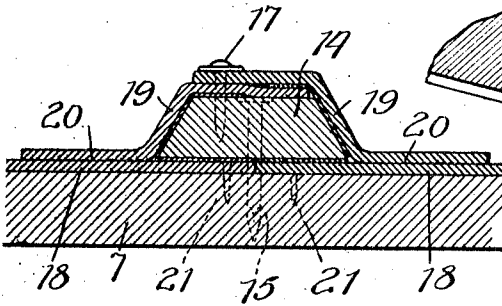


Fig. 4.

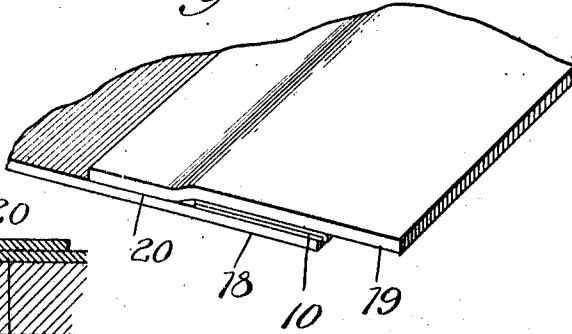


Fig. 5.

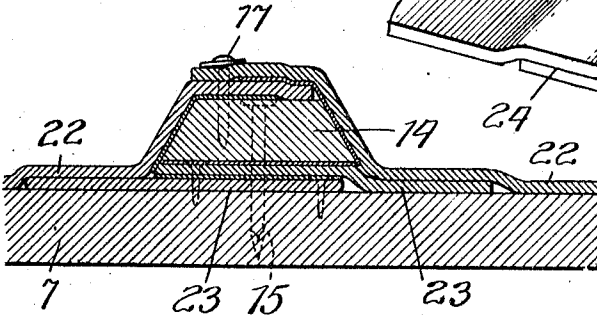
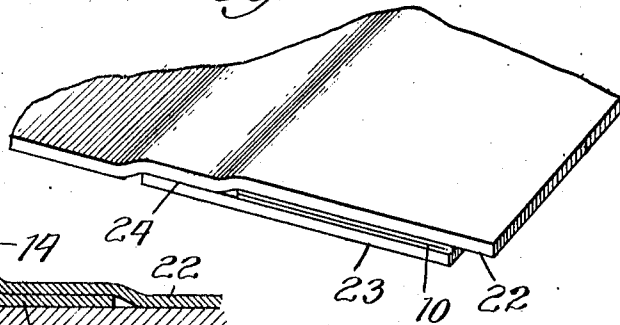


Fig. 6.



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UNITED STATES PATENT OFFICE.

FRANK S. HOWARD, OF LOMBARD, ILLINOIS.

ROOFING-JOINT.

993,686.

Specification of Letters Patent.

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To all whom it may concern.

Be it known that I, FRANK S. HOWARD, a citizen of the United States, residing at Lombard, in the county of Dupage and State of Illinois, have invented a new and useful Improvement in Roofing-Joints, of which the following is a specification.

My invention relates to improved means for joining the edges of strips of roofing-felt, or other flexible roofing material, when laying the same.

Hitherto, it has always been a difficult matter in laying roofing-felt to render the joints between the lengths secure against danger of disturbance from severe wind and sleet storms and always proof against leakage, this difficulty being enhanced where the roofing is applied to an uneven surface, such as that of sheathing-boards of uneven thickness or old shingle roofs.

My object is to provide a simple and improved construction of lap-joint for lengths of flexible roofing material which will overcome the said difficulties and may be quickly and easily formed as the roofing is laid.

In the drawings—Figure 1 is a fragmentary sectional view of a roof showing my improved joint of the construction I prefer when two-ply roofing material is employed; Fig. 2, a broken perspective view of the edge-portion of one of the two-ply lengths of roofing-felt shown in Fig. 1, as initially provided; Fig. 3, a view similar to Fig. 1, but showing the joint made of single-ply roofing-felt having edge-flaps on the upper surfaces; Fig. 4, a view similar to Fig. 2, but showing the way that the felt employed in Fig. 3 is initially provided; Fig. 5, a view similar to Figs. 1 and 3, showing a joint made of single-ply roofing-felt having edge-flaps on its under side; and Fig. 6, a view similar to Figs. 2 and 4, showing the way the felt employed in Fig. 5 is initially provided.

The numeral 7 designates the foundation upon which the roofing is laid. It may consist of sheathing-boards, either close together or spaced apart, or may be, as often happens, an old shingle roof which it is desired to render weather-proof by laying thereon the flexible roofing material. In the case of lengths of roofing-felt, or the like, formed of two or more layers or thicknesses 8, 9 cemented together, I prefer in the course of manufacture to insert strips 10 of thin

paper, or other suitable material, between the layers at the opposite edges thereof, as shown in Fig. 2. Each strip 10 is bent over upon itself to present the central folded edge 11. The layers 8 and 9 are cemented together between the strips 10, and at their edges may or may not be cemented against the outer surfaces of the strips, leaving the inner surfaces thereof always free to separate when a strip is severed along the fold 11. Before laying the roofing the strips 10 are severed along their folded edges and one length of the felt is laid and positioned upon the roof and fastened down, by means of tacks 12, or other suitable fasteners, driven at intervals along the edge-portion of its layer 9. The next length of felt is then positioned with the free edge-portion of its layer 9 overlapping the layer 9 of the length previously positioned, and fastened down as by means of tacks, or the like 13. A strip of wood, or batten, 14 of substantial thickness and of any suitable shape in cross-section, and approximating in width, preferably, that of the flaps, or free edge-portions, of the layers 8, 9, is then placed upon the overlapping layers 9 and fastened securely in place, as by means of nails 15. The free edge-portion, or flap, of the layer 8 of one length of felt is then drawn over the batten and, if desired, fastened at intervals by means of tacks, or the like, 16, after which the free edge-portion of the layer 8 of the other length of felt is drawn over the flap 8 of the first layer and secured at its edge to the batten by means of nails, equipped with tin buttons, 17, or by means of other suitable fastening devices.

In the construction shown in Figs. 3 and 4, roofing-felt formed of a single layer 18 of the material is provided at its edges with flaps 19. The flaps 19 are secured along their inner edge-portions 20 with cement; and interposed between the outer edge-portions of the parts 18, 19 are strips 10, as shown, and for the same purpose as hitherto stated. In laying this roofing the strips 10 are severed at the outer edge, leaving upper and lower flaps. The flaps produced by the edges of the length or layer 18 are fastened down, as by means of the tacks 21, a batten 14 is fastened over the meeting edges of the lower flaps, as by means of the nails 15, and the flaps 19 are drawn over the batten and caused one to overlap the other, as shown.

The upper flap 19 is fastened down by means of suitable fasteners 17 which hold the layers 19 firmly to the batten.

In the construction shown in Figs. 5 and 6, lengths of flexible roofing-material 22 are provided at their edges with flaps 23 of the same material, the flaps being on the under sides and cemented at the meeting surfaces 24. The outer edge-portions of the flaps and layers 24 are separated by the intervening strips of flexible material 10, for the same purpose as before described. In applying this roofing the lower flaps 23 may be fastened down, the batten 14 placed thereon and the upper flaps secured in the same manner as described in connection with Fig. 1. At each joint the outer layers or flaps of roofing-felt, or the like, overlap each other upon battens forming decided ridges which, in practice, would approximate an inch, more or less, in height. The only place where moisture could enter, namely, between the surfaces of the upper flaps, is thus raised in a manner to prevent its becoming submerged in water running down the roof. If the fastenings 17 are placed close enough together, they will hold the free edge of the uppermost flap so closely against the next underlying flap as to obviate all danger of moisture entering between those flaps and without the necessity of cementing these flaps together. The battens 14 should, preferably, be so stiff as to render them practically unyielding, so that the upper layers will at all times remain firm, and the battens operate to pinch the lower layers of roofing-material securely between them and the foundation 7. The strips 10 are applied in the manufacture

of the lengths of roofing at the factory, and serve to hold the flaps without danger of their becoming stuck together; and these strips may be readily severed, before the roofing is laid, by running a knife-blade between the edges of the layers.

What I claim as new and desire to secure by Letters Patent is—

1. In a roof, the combination with the sheathing, or the like, of parallel lengths of flexible roofing-material, overlying the sheathing, a wooden batten imposed upon adjacent portions of said lengths and clamping the same to the sheathing, said batten being of sufficient thickness to constitute a substantial water shedding ridge over the joint, the edge-portions of said lengths having flaps extending over, and one overlying the other upon, said batten, and fasteners securing the said flaps to the batten.

2. In a roof, the combination with the sheathing, or the like, of parallel lengths of flexible roofing-material overlying the sheathing and provided at their adjacent edges each with a pair of upper and lower flaps, a wooden batten imposed upon the lower flaps and clamping the same to the sheathing, said batten being of sufficient thickness to constitute a substantial water shedding ridge over the joint, the upper flaps extending over, and one overlying the other upon, said batten, and fasteners securing said upper flaps to the batten.

FRANK S. HOWARD.

In presence of—

R. A. SCHAEFER,
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