Sept. 19, 1944. L. H. OVERLY 2,358,733

ROOF CONSTRUCTION

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Fig. 1.

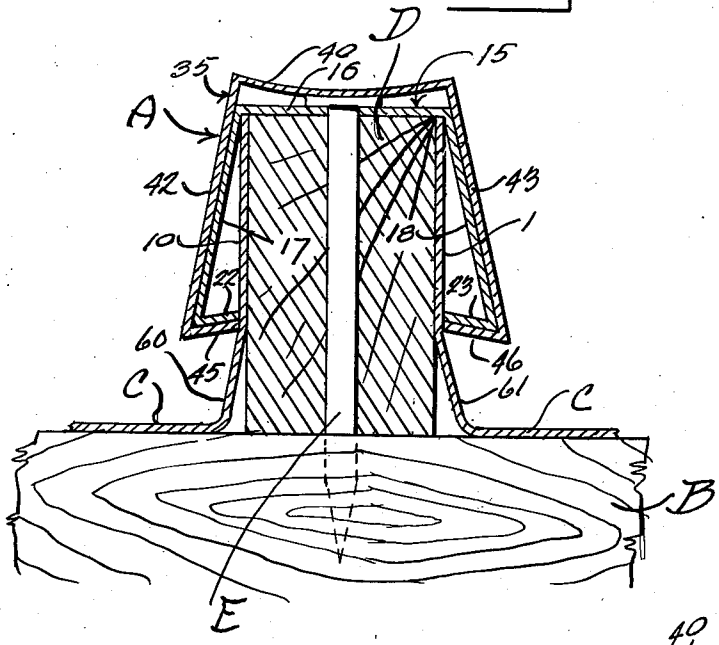
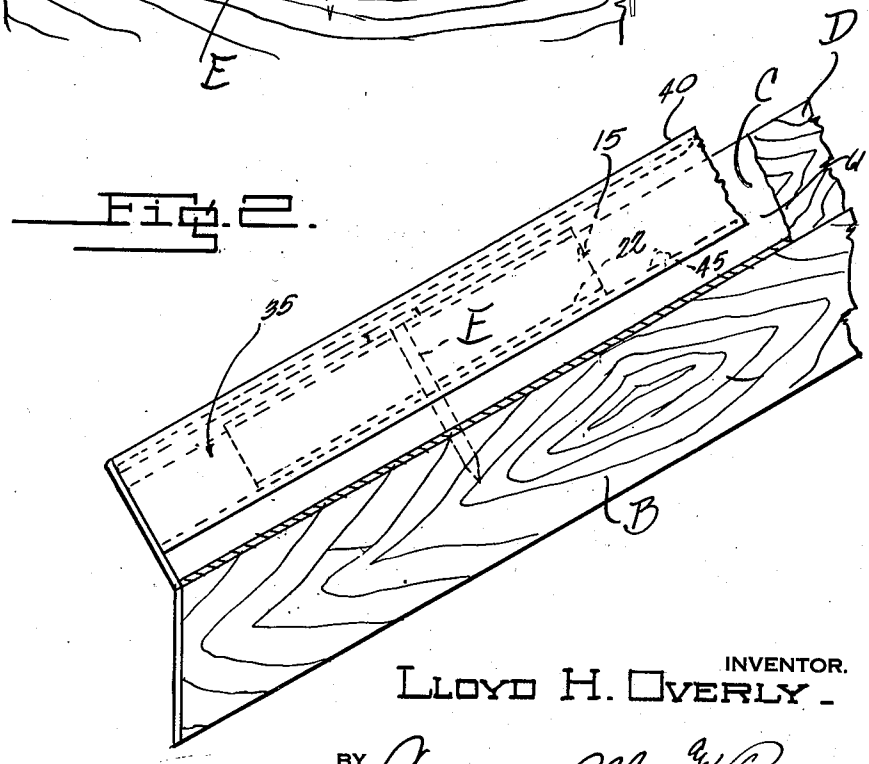


Fig. 2.



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ROOF CONSTRUCTION

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10 Claims. (Cl. 108—21)

This invention relates to improvements in roofing structures.

The primary object of this invention is the provision of an improved joint construction for flexible sheet roofing which will enable the utilization of pre-fabricated material; which can be applied quickly and expertly by unskilled labor, and which is inexpensive and produces a neat and trim appearance.

A further object of this invention is the provision of an improved batten cover for sheet roofing which may be applied with facility and which is water-proof and will prevent the seepage of water beneath the sheet roofing thru capillary attraction.

A further object of this invention is the provision of a ventilated joint connection for sheet roofing materials which will enable the circulation of air; prevent water from entering the same by means of capillary attraction, and one which will prevent condensation of moisture therealong.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and wherein similar reference characters designate corresponding parts thruout the several views—

Figure 1 is a cross sectional view taken thru the improved batten cover or joint for sheet roofing material.

Figure 2 is a fragmentary showing in side elevation of a portion of the improved joint or cap and its associated construction.

In the drawing, wherein for the purpose of illustration is shown only a preferred embodiment of the invention, the letter A may generally designate the improved joint structure. The sheathing B may be of wood, composition material or even steel decking. It is adapted to be covered by means of roll type roofing sheets C, which are usually twenty inches wide. This sheet material may be metal, asphalt, paper, Congoleum, other composition material, fabric (such as canvas), tin or any other material desired.

The upstanding wings or portions 10 of adjacent roofing sheets C are adapted to be positioned against the sides of the batten D, which serves to construct the joint at the longitudinal meeting edges of the roofing sheets C.

Referring to the improved joint construction A, I prefer to provide anchor cleats 15, preferably of metal in capped relation upon the batten D. These anchor cleats 15 are preferably of 3'' length and they are relatively spaced about 1' apart longitudinally of the batten. Each of the same includes a top wall 16 which fits over the top of the batten D. Downwardly extending relatively divergent walls or side portions 17 and 18 are extended from the opposite edges of the top wall 16 of the cleat 15. These side walls or wings 17 and 18 terminate at their lower ends above the roofing material C and present inturned wings or securing flanges 22 and 23, the edges of which bear against the inturned portions 10 of the roofing sheets C and press said material forming the portions 10 tightly against the opposite sides of the batten D, as shown in Figure 1 of the drawing. Nails E anchor the cleats 15 in place; the heads of the nails lying on top of the top walls 16, and the nails, of course, extending thru the battens and into the sheathing B of the roof, as shown in Figure 1 of the drawing. If steel decking is used instead of wooden sheathing, then screws will have to take the place of the nails E, as can readily be understood by those skilled in the art to which this invention relates.

The joints A each include a cover cap 35 which extends the full length of the batten or joint formed at the adjacent edges of the roofing section C. These cover caps are preferably of copper or some other suitable material. They are preferably made in long lengths upon drawing machines at the place of manufacture, and the purpose of them is to snap into position upon the anchor cleats 15. These cover caps 35 preferably include a top wall 40 which is arcuate in cross section; the convex side facing the head of the nail or securing member E and adapted to rest thereagainst. The top walls 40 are rather springy due to their formation. They are forced into position against the securing elements upon the tops of the battens, and are sprung into position upon the anchor cleats. Furthermore, the caps 35 each include side walls 42 and 43 adapted to overlap in contact with the side walls 17 and 18 of the cleats; inwardly and upwardly extending flanges or wings 45 and 46 similar to the wings 22 and 23 being provided upon the lower edges or margins of the walls 42 and 43 and adapted to underlie in contact with the wings 22 and 23, as shown in Figure 1 of the drawing.

It should be noted that the wings 22—23 and 45—46 are undercut; that is, they extend upwardly and inwardly so as to prevent dripping water from climbing to the point of contact of

said wings with the side edges of the roofing section C. The wings **45** and **46** when in engagement beneath the wings **22** and **23**, will be held securely in position due to the fact that said wings **45** and **46** will not assume this position without springing or placing the wall **40** under tension.

It is to be noted that the wings terminate above the roofing sheets C and the latter at the locations **60** and **61** are rather loose to permit of expansion of the roof construction without tearing the roofing material.

From the foregoing description of this invention it is quite apparent that an improved batten joint for sheet roofing has been provided which can be manufactured rather inexpensively, and which may be assembled accurately and efficiently and also quickly, by means of unskilled labor. It is to be noted that all parts have their position without guesswork upon the part of the operator, and there are no exposed nails or securing elements.

Various changes in the shape, size and arrangement of parts may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In a joint for sheet roofing the combination of anchor cleats applied upon a batten at the joint of the sheet roof section to hold the upturned sides of sheet roofing against the sides of the batten, said anchor cleats having anchor portions, and a batten cap having parts engaging said anchor portions, and spring means yieldably holding said parts in anchored relation with the anchor portions of said cleats.

2. In a joint construction to be located at the batten of sheet roofing the combination of sheet roofing having its sides in upturned relation against said batten, anchor cleats, means securing said anchor cleats at spaced intervals along the batten, and an elongated cover cap detachably secured to said anchor cleats in sprung position with the side portions of said cover engaging against the upturned portions of the sheet roofing and forcing the latter into contact with the sides of said batten.

3. As an article of manufacture, an anchor clip for batten joints of sheet roofing comprising a top wall, downwardly extending divergent side walls, an inturned anchor wing at the lower margin of each side wall, said anchor wings being upturned in inwardly extending acute angled relation of less than 90° with respect to the planes of the respective side walls upon which they are positioned.

4. As an article of manufacture, a cover cap for batten joints of sheet roofing comprising a top wall, relatively divergent side walls, and anchor wings on the lower ends of the side walls extending inwardly towards each other, said side wings being positioned in acute angled relation with respect to the planes of the respective side walls upon which they are positioned and extending towards each other in upward convergence.

5. As an article of manufacture, a cover cap for the batten joints of sheet roofing comprising a resilient top wall, side walls, and anchor portions on the lower edges of the side walls, said top wall being concavo-convex in cross section with its concave surface facing upwardly.

6. A batten joint construction for sheet roofing comprising short anchor cleats and an elongated cap for anchoring to said cleats, both the cleats and the cap comprising a top wall, relatively divergent side walls extending from the side edges of the top wall, and inturned anchor wings at the lower margins of each of the side walls sloping upwardly.

7. In a roof construction the combination of sheathing, a batten attached to the sheathing, roofing sheets opposite sides of the batten upon said sheathing with side margins upturned against the sides of the batten, anchor cleats secured to said batten at spaced intervals having cap securing portions thereon, and a joint cap of elongated construction to spring snap into position upon said anchor cleats and secured thereto by said anchor portions of said cleats and in position to hold the side margins of the roofing sheets against the sides of the batten.

8. In a roof construction the combination of sheathing, a batten attached to the sheathing, roofing sheets at opposite sides of the batten having their sides upturned against the batten, anchor cleats attached to said batten at spaced intervals, and a joint cap attached to said anchor cleats and having side walls extending along the sides of the upturned portions of the roofing sheets and in spaced relation therewith; the lower margins of said side walls contacting and holding the roofing material against the sides of the batten and on a narrow line running lengthwise at each side of the batten whereby air spaces are provided between the inside surfaces of the sides of said cap and the facing portions of said upturned roofing sheets.

9. In a roof construction the combination of a roof having a batten attached thereto, roofing sheets having portions extending along the opposite sides of the batten, anchor cleats secured to the batten at spaced intervals having lower portions extending transverse to the sides of the batten, and a transversely resilient joint cap of elongated construction having side portions provided with inturned anchor parts, and means connecting said side portions so that they may be sprung apart to permit the anchor parts to engage the transverse portions of said anchor cleats and force the same into engagement with the roofing sheets.

10. In a roof construction the combination with a roof having a batten and roofing sheets with their sides against the batten sides, anchor cleats secured at spaced intervals along the batten having sides overlying the sides of the batten and being provided with anchor portions, and a transversely resilient elongated joint cap having side portions and a top wall resiliently holding the side portions in yieldable engagement with the anchor portions of said cleats and forcing the sides of the roofing sheets against the batten sides.

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