March 31, 1931. C. A. MARTIN 1,798,380

ROOF CONSTRUCTION

Filed Nov. 18, 1926

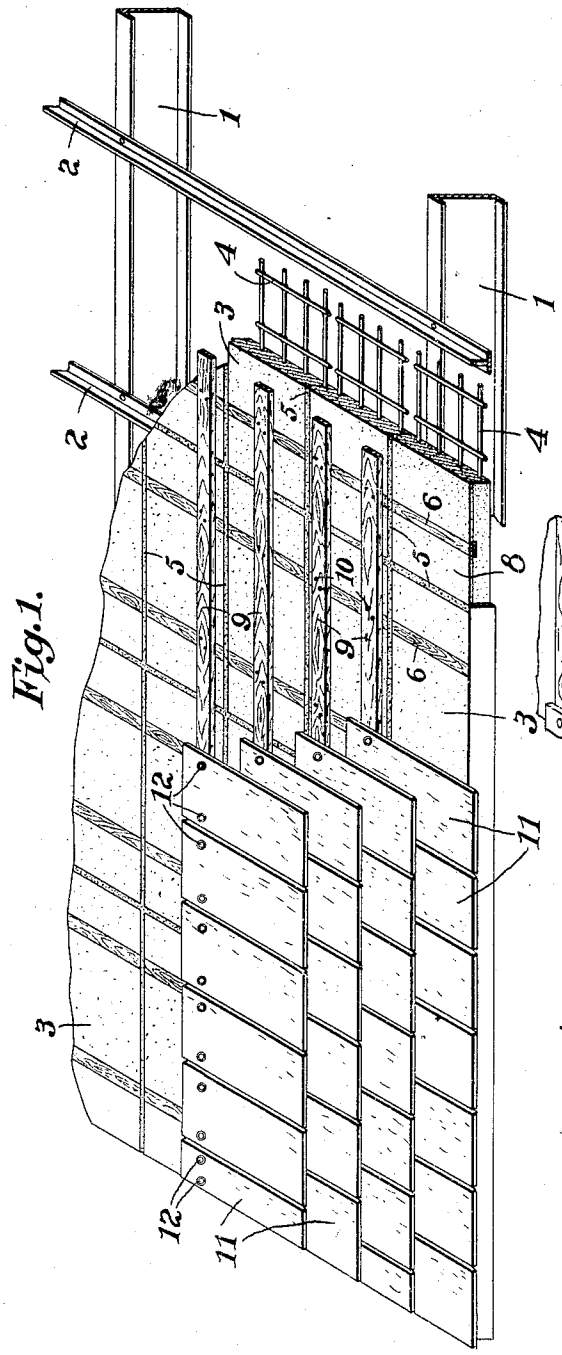

Fig. 1.

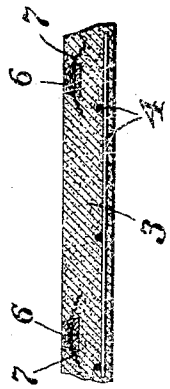

Fig. 3.

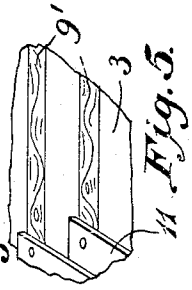

Fig. 5.

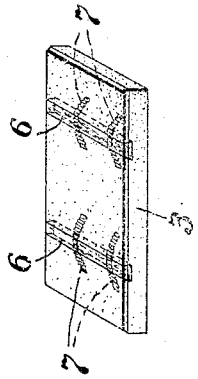

Fig. 2.

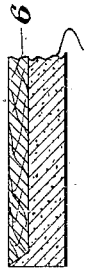

Fig. 4.

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UNITED STATES PATENT OFFICE

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ROOF CONSTRUCTION

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This invention relates to roof construction and refers more particularly to a new and improved roof construction which is formed of roof tile. In the particular form shown there is utilized a reinforced gypsum roof tile and this tile is formed with nailing strips or members embedded. The invention is however not limited to the particular form shown except as ultimately set forth in the claim.

Among the objects of the invention are: to provide a roof tile in which a nailing strip or member is embedded and so constructed and arranged that the roof can be rapidly laid and the water-proof covering applied by nailing or the like. Other objects of the invention are to provide a construction which can be economically manufactured and the nailing strips formed in the tile at the time the latter are cast, and shipped conveniently. The invention further resides in such features of construction and arrangements and combinations of parts as will more fully hereinafter appear.

In the particular embodiment of my invention shown in the drawings:

Figure 1 is a perspective view partly broken away showing the roof construction embodying my invention.

Figure 2 is a perspective view of one of the roof tile.

Figure 3 is an enlarged longitudinal section through the tile shown in Figure 2.

Figure 4 is a detail view of a slightly modified form of construction.

Figure 5 is a detail view showing a further modified form of construction.

Describing in detail the illustrative construction shown in the drawings, 1 designates the supporting steel members and 2 designates T irons or light rail sections which are laid on top of the supporting members 1. The T irons or rails extend at right angle to the supporting members 1 and are preferably secured thereto by means of the use of bolt or clip connections or in any other suitable manner.

The series of roof tiles 3 are laid in between each of the rail sections 2 and these tiles have a bearing on the bottom flanges of the T irons or rail sections 2. Preferably the tiles are formed with a reinforcement 4 which, in the particular form shown, is electrically welded wire mesh. Each of these tiles has a mortar joint 5 at the top edges of the tiles so that when the latter are laid in place they can be secured in position by mortar placed in the groove formed by adjacent edges.

Preferably, the joints are filled with mortar which consists of the same material that the tiles are made of.

Also at the time the tiles are cast there is embedded in them a bevelled sleeper or nailing strip 6 which is molded in the tile. In order to prevent the sleeper strips 6 from becoming loose and particularly from working out endwise they are anchored into the tile by means of anchors 7 fastened to the sleeper strip before the gypsum or other tile material is poured around the sleeper strip in the mold. While I have illustrated two of these anchors for each sleeper strip in the tile 3 it is obvious that one or more could be employed and that in place of the particular form of anchor illustrated there could, within the broader aspects of my invention, be employed nails or other securing members in place of the particular form of anchor shown. The sleeper strip 6 may also be so shaped as to prevent longitudinal displacement thereof without the assistance of the anchor fasteners and as a consequence the latter may be dispensed with. As shown in Figure 4, this can be done by substituting for the strips 6 a plurality of similar strips 6′ having undercut ends so that a bevel is made, tapering from one-half the thickness to zero in 1 inch of its length from either end. The nailing strips 6 extend across the full width of the tile and are preferably so embedded that the top of the sleeper or nailing strip 6 is flush with the top 8 of the tile 3. While these strips are shown as extending across the full width of the tile small nailing members could be employed in place of the strips in some cases.

These sleeper or nailing strips 6 are preferably so arranged that when the tiles are laid the end of one nailing strip 6 will be in

alignment with the end of an adjacent nailing strip 6.

A series of transverse nailing strips 9 are shown as fastened to the sleeper strips 6 by means of nails or like securing members 10, and the water-proof covering, in the particular instance shown the tiles 11, are secured by nails or other suitable securing members 12 directly to the nailing strips 9.

In the construction as above described the tile can not only be preformed in the factory with the nailing strips or securing members 6 embedded therein but the entire roof construction can be rapidly assembled by securing the T irons or light rail sections 2 to the supporting steel members 1, then laying the tiles upon the lower flanges of the T irons or rail sections 2 nailing the cross strips or nailing members 9 to the sleeper or nailing strip 6 and then applying the slate, shingles or other water-proofing member by nailing them to the cross nailing strips 9. However, as shown in Figure 5, in place of utilizing the cross nailing strips 9 the nailing strips 9′ might be embedded in the tile 3 longitudinally and the water-proof covering nailed direct to the nailing strip 9′. Various other changes in construction and proportion and arrangements of parts can obviously be made without departing from the scope of my invention.

What I claim as my invention is:

In roof construction, a tile formed of gypsum or the like having a reinforcement embedded therein and a nailing strip of suitable nail-retaining material embedded in said tile, said strip having outwardly tapered side walls for preventing lateral displacement thereof and anchor members secured to said nailing member and embedded in the tile during the formation of the latter.

In testimony whereof I affix my signature.

CHARLES A. MARTIN.