

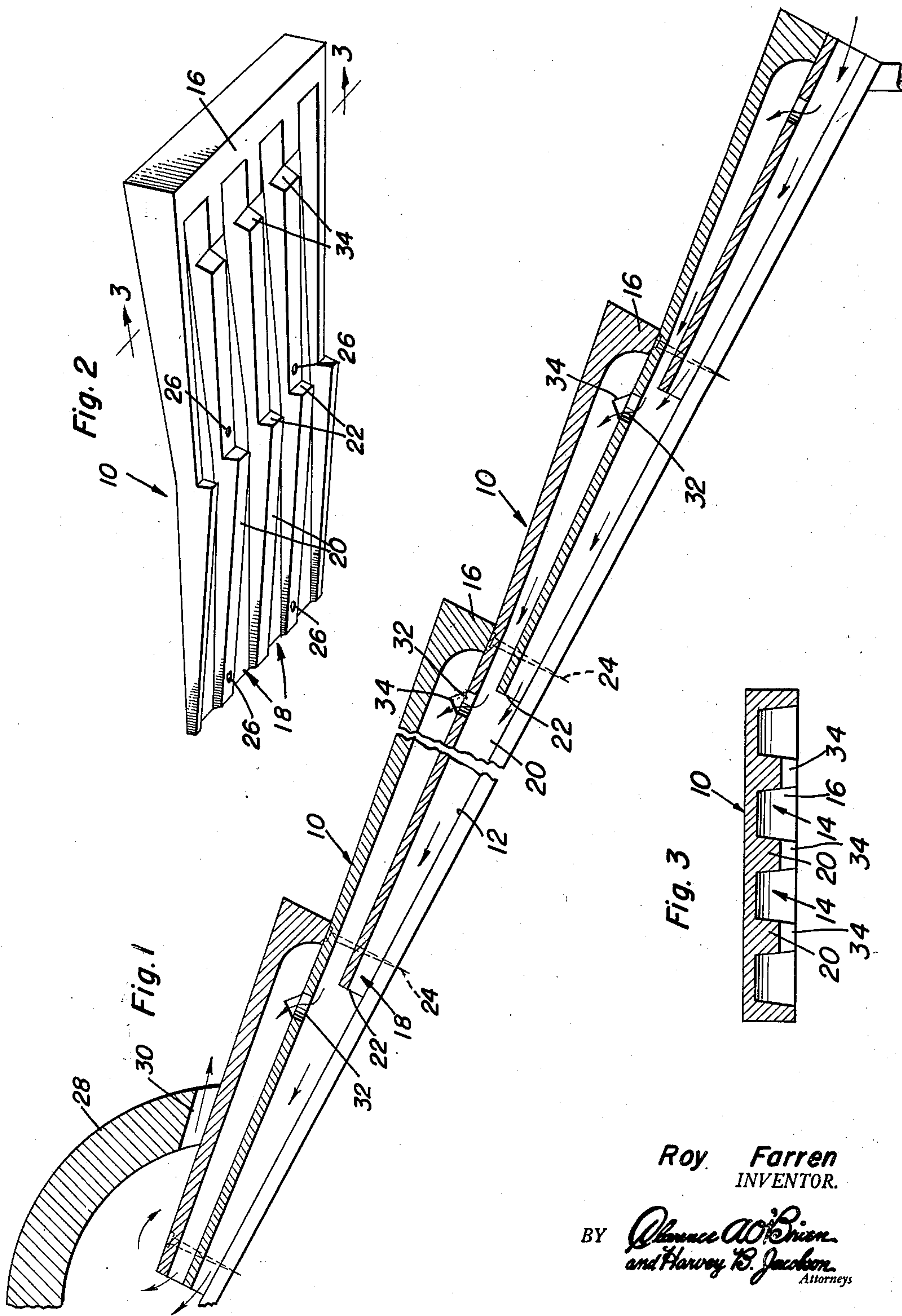
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## TILE ROOF STRUCTURE

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## UNITED STATES PATENT OFFICE

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## TILE ROOF STRUCTURE

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2 Claims. (Cl. 108—10)

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This invention relates to new and useful improvements and structural refinements in tile roof construction, and the principal object of the invention is to provide roof tile of cast or molded construction, equipped with longitudinal as well as transverse air passages to promote air circulation within the body of the roof.

Some of the advantages of the invention reside in its simplicity of construction, in its durability, in its convenient installation and in its adaptability to economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the construction and arrangement of parts as shown in the accompanying drawings in which:

Figure 1 is a sectional view of the roof construction in accordance with the instant invention;

Figure 2 is an underside perspective view of one of the tiles; and,

Figure 3 is a transverse sectional view, taken substantially on the plane of the line 3—3 of Figure 2.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, each roof tile unit is designated generally by the reference character 10 and embodies in its construction an elongated, monolithic form which is longitudinally tapered in the direction of ascent when mounted upon a sloping roof surface or deck 12, the tile 10 being provided at the underside thereof with longitudinal air passages 14 which are closed at their lower ends 16 and have open upper ends, as indicated at 18.

Portions of the tile body 10 between the passages 14 define a series of ribs 20, and it is to be observed that these ribs are notched or stepped as indicated at 22 so that, in conjunction with the longitudinally tapered configuration of the tiles, the tiles may be mounted on the roof surface 12 in overlapped relation, as is clearly shown in Figure 1.

The tiles may be secured to the roof surface either by adhesive or by suitable nails or spikes 24 extending through apertures 26 with which the tiles are provided, and when the tiles are assembled as shown, the open upper ends 18 of the air passages 14 of each tile communicates with intermediate portions of the corresponding passages of the next overlapping tile, whereby continuous air circulation is effected from the lower end to

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the ridge of the roof, wherein the roof construction is provided with an overlapping "crown" tile unit 28 for the purpose of excluding weather from the air passages. Moreover, the lower edge of the crown tile unit 28 is formed with an air escape recess 30, as shown.

To promote additional air circulation, each tile unit is formed intermediate the ends thereof with air openings 32 which establish communication between the intermediate portions of the air passages 14 in each tile unit with the lower end portion of the corresponding air passages in the next overlapping unit, whereby any dead air spaces are avoided. Moreover, the aforementioned ribs 20 of each tile unit are provided adjacent their lower ends with recess 34 affording transverse air vents between the longitudinal air passages 14.

It is to be noted that the taper of the upper end portion of each tile is lesser than the taper of the lower end portion, whereby the tiles may be of substantial thickness but still properly overlap, without unduly increasing the thickness of the roof.

It is believed that the advantages and use of the invention will be clearly understood from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

1. In a roof structure, the combination of an inclined deck and a row of overlapped tiles provided thereon, each tile comprising an elongated body having upper and lower ends, the underside of said body being stepped intermediate the ends thereof to provide an abutment for the upper end of an underlying tile and also provide upper and lower underside portions extending from said abutment to the respective upper and lower ends of said body, the entire length of the upper underside portion contacting said deck and the entire length of the lower underside portion contacting the outer surface of said underlying tile, whereby said body is supported at the underside thereof along its entire length, said body also being provided at the underside thereof with longitudinally extending grooves having closed lower ends and

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open upper ends, said grooves constituting air passages and the upper ends thereof communicating with intermediate portions of corresponding passages in an overlying tile.

2. The structure as defined in claim 1 wherein said body is tapered in thickness from the lower end to the upper end thereof, the outer surface of said body comprising upper and lower surface portions disposed in angularly offset planes and having contiguous edges in substantial alignment with said abutment.

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