No. 687,103. Patented Nov. 19, 1901.

D. W. ANDERSON.

COMBINED BRICK AND TILE FURRING OR FACING FOR WALLS.

(Application filed Dec. 4, 1900. Renewed Oct. 28, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

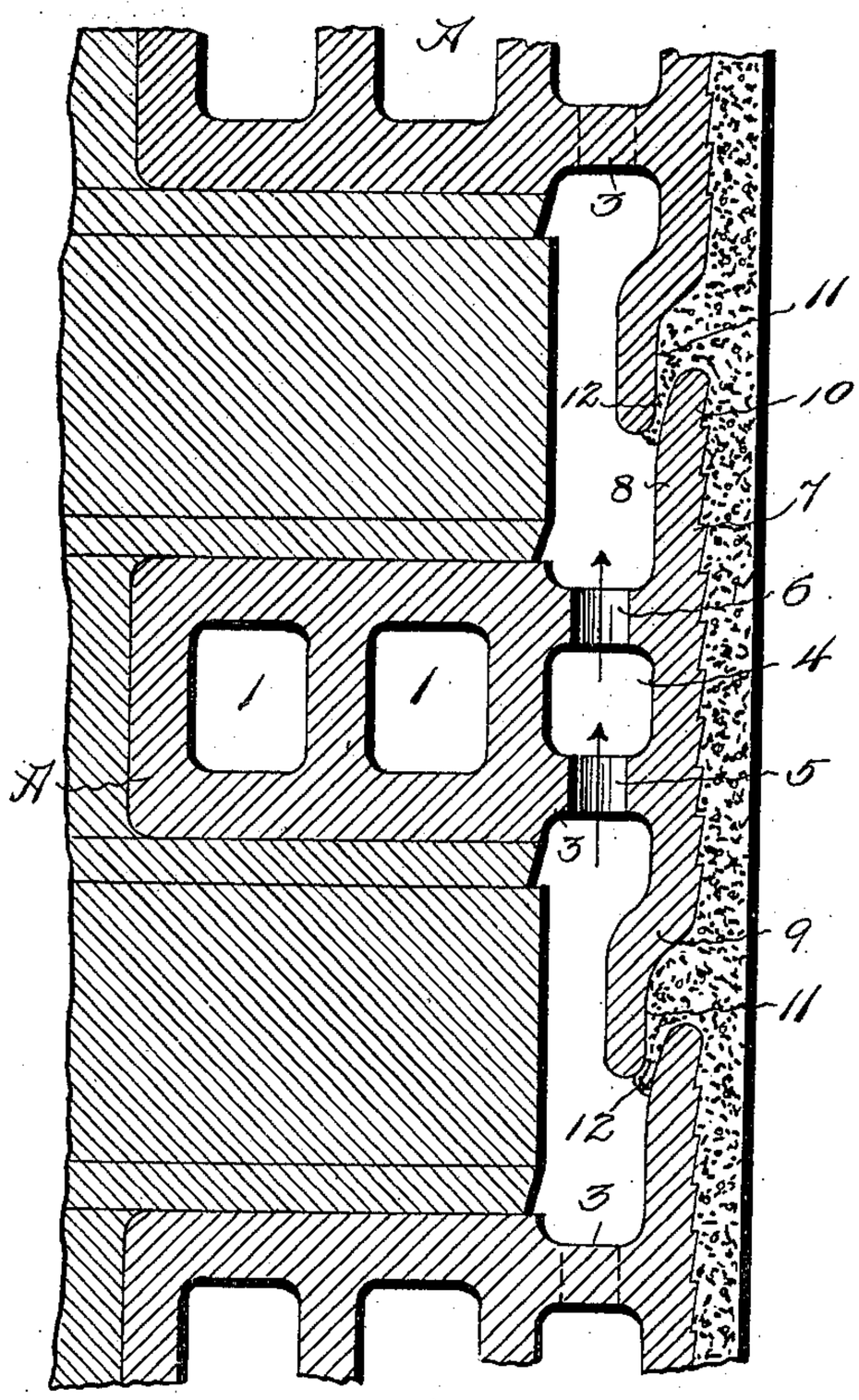


Fig. 2.

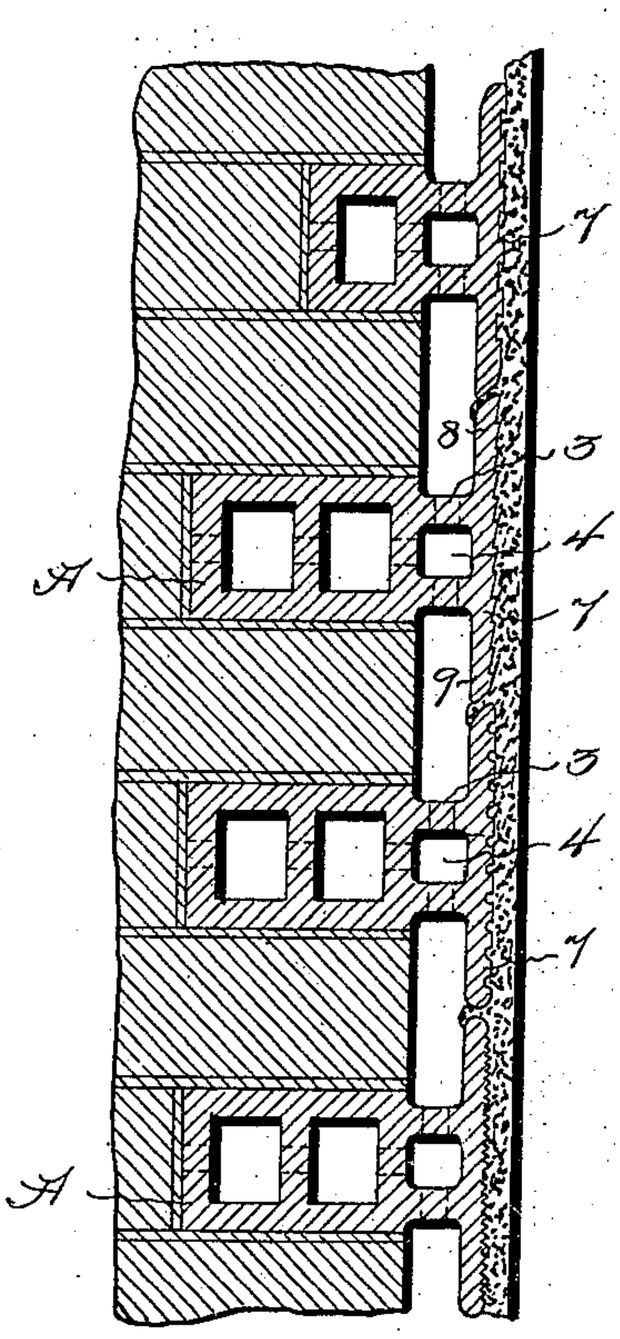
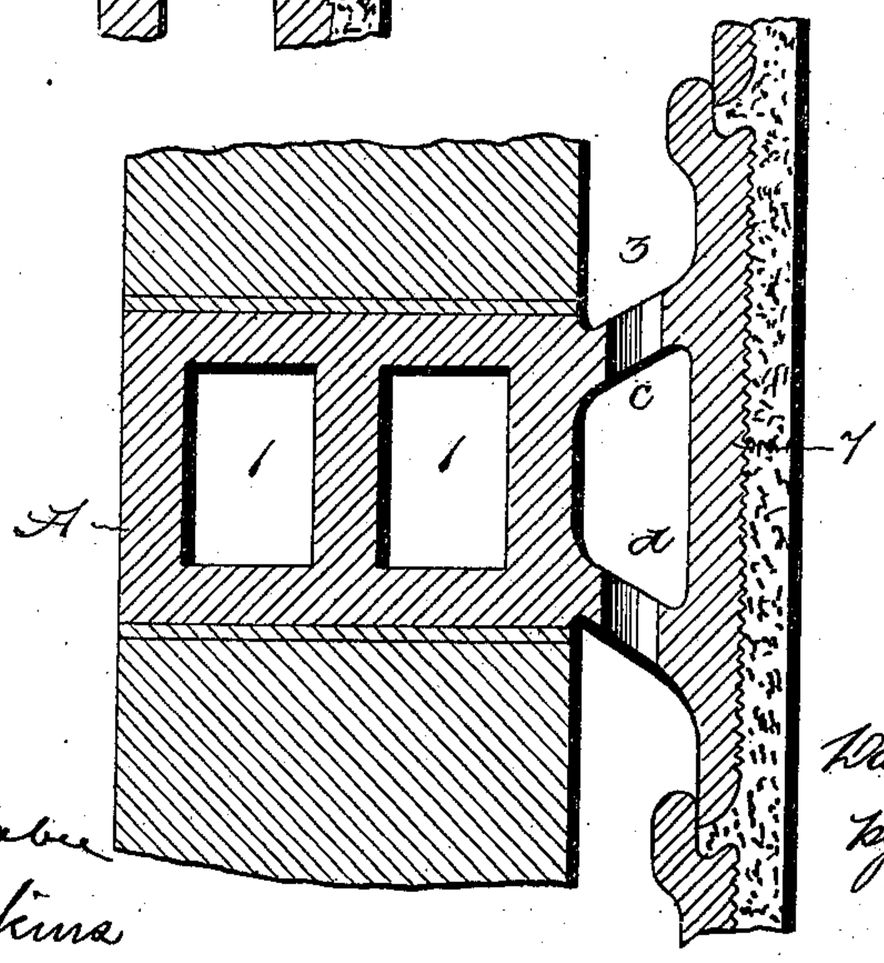


Fig. 6.



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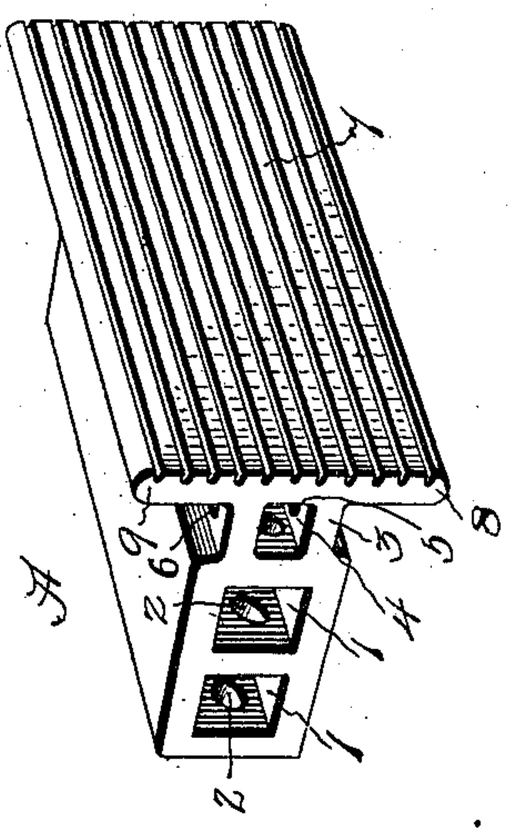


Fig. 5.

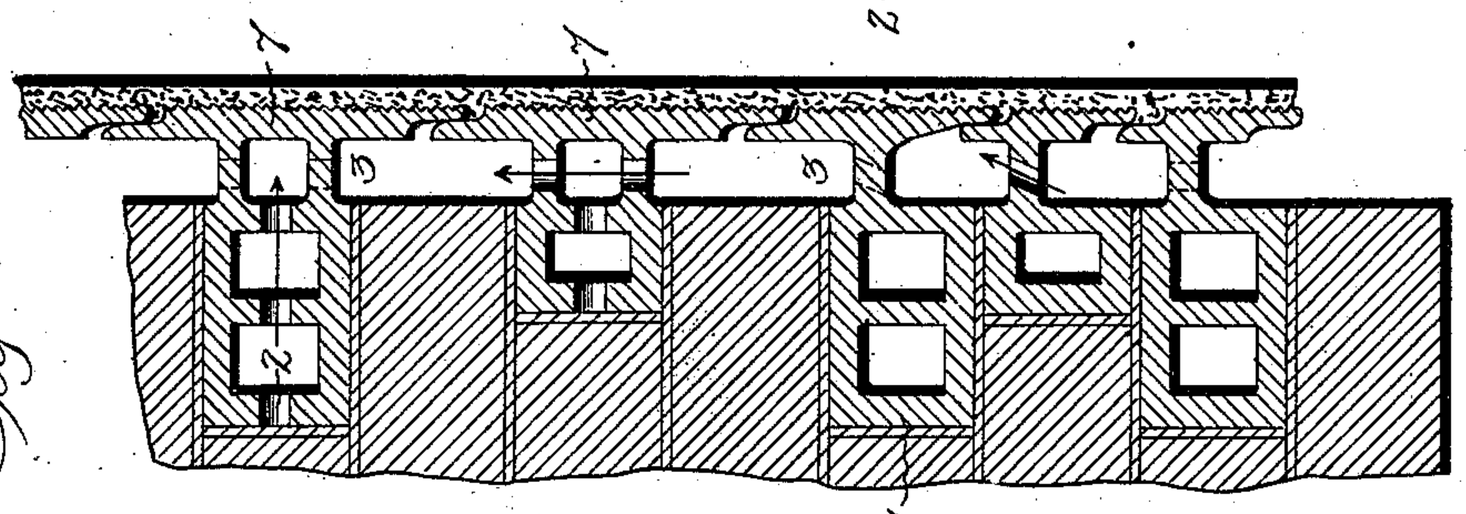


Fig. 4.

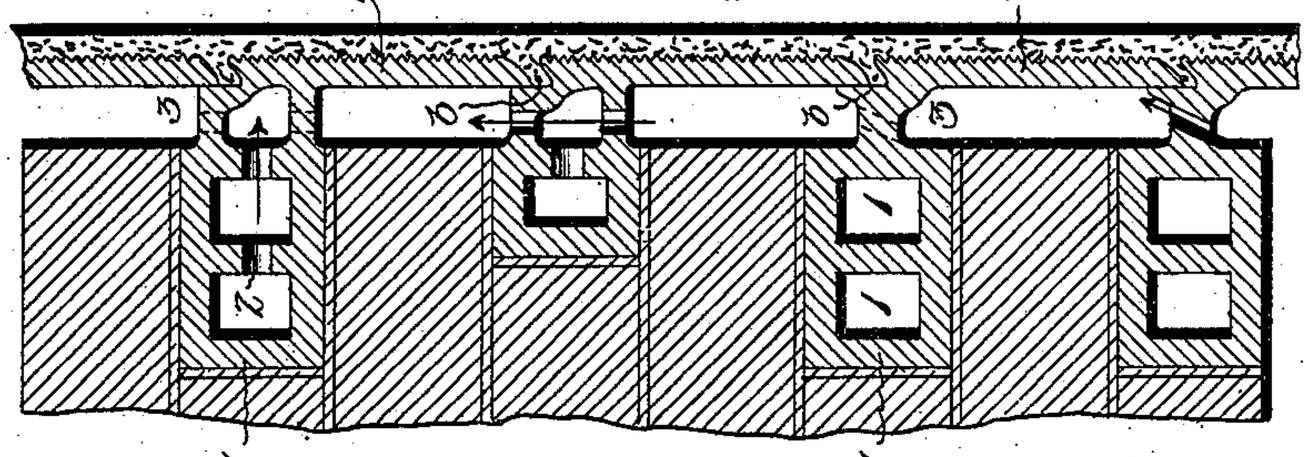
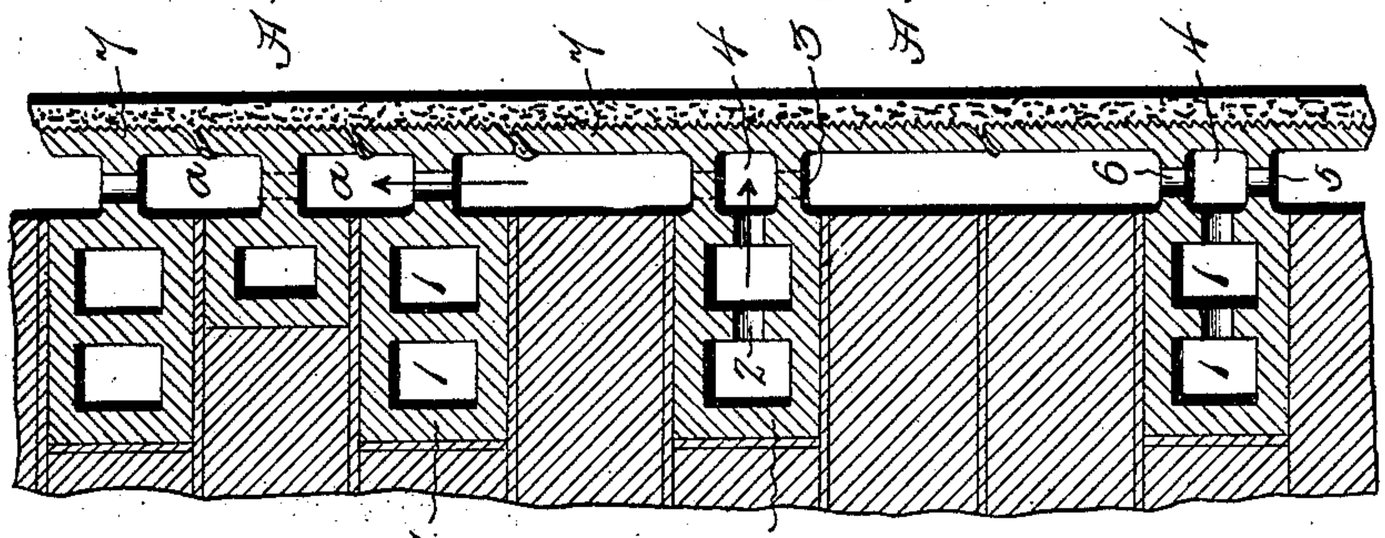


Fig. 3.



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UNITED STATES PATENT OFFICE.

DAVID WILEY ANDERSON, OF RICHMOND, VIRGINIA.

COMBINED BRICK AND TILE FURRING OR FACING FOR WALLS.

SPECIFICATION forming part of Letters Patent No. 687,103, dated November 19, 1901.

Application filed December 4, 1900. Renewed October 28, 1901. Serial No. 80,321. (No model.)

To all whom it may concern:

Be it known that I, DAVID WILEY ANDERSON, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in a Combined Brick and Tile Furring or Facing for Walls; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to improvements in combined hollow brick and tile furring or facing for walls; and the object is to provide an improved brick and tile furring or facing for walls which is adapted to be permanently built into the wall with the furring or facing portion projecting beyond the face of the wall and lapping each other in the structure, and also to provide such a brick or tile with longitudinal and vertical intersecting passages, whereby the air is distributed laterally and vertically throughout the area of the wall.

My present invention is distinguished from the subject-matter disclosed in my prior patents dated December 25, 1900, in that said patents illustrate wall-tiles having means for securing them to walls or other masonry, while in the present instance the invention involves a combined brick and tile, the body portion thereof constituting a portion of the wall.

The invention is particularly designed to completely fulfil the objects of my prior invention for an improved system of heating, cooling, or ventilating buildings by the circulation and distribution of air through conduits or passages extending throughout the entire area of the walls of compartments.

I have fully and clearly illustrated the invention in the accompanying drawings, forming a part hereof, and wherein—

Figure 1 is a vertical section of a wall having my improved combined brick and tile furring or facing as practically applied. Figs. 2 and 3 are vertical sections of a wall, showing slightly-modified constructions and formations of the combined brick and tile furring or facing for walls. Figs. 4 and 5 illustrate further slight modifications, wherein the furring or facing is formed with a horizontal shoulder extending across the face thereof. Fig. 6 is a vertical section of a combined brick and tile with furring and facing front and flanges and inclined upper and lower neck and web walls. Fig. 7 is a perspective of my improved brick and tile furring and facing for walls.

It will be premised that it is designed to construct or form a brick and tile furring or facing, the body of which constitutes a permanent part of the wall of the structure, with the furring or facing part integral therewith and projecting therefrom and provided with air-passages for the distribution of the air, as will be hereinafter fully described.

Referring to the drawings, and especially to Fig. 1, A designates the body of my improved brick and tile, which body portion may be of any determined dimensions, but generally of such as will adapt it to form part of the wall without disturbing the alinement of the structure. The body may be formed with one or more openings 1, extending parallel with the face of the wall, and apertures 2 between the openings and also leading into the channel or passage in the neck or web of the tile. This construction, it will be perceived, causes air to distribute and circulate through the body of the wall, and thus keep the structure dry and free from moisture to considerable depth from the facings and the beneficial effects permeating the surrounding and adjacent portions of the whole structure. At the front the body is formed with a neck or web portion 3, preferably narrower than the height of the body and formed with an opening 4, parallel with the face of the body, and vertical air-passages 5 6, opening from the passage or opening 4 at the top and bottom of the neck or web. The neck portion 3 terminates in the furring or facing tile part 7, integral with the neck and formed with upper and lower vertical facing-flanges 8 9, extending the length or width of the body, as indicated in the drawings and seen in Fig. 7. The upper facing-flange on the inner face is curved or directed outward, as at 10, and the outer face of the lower portion of the depending flange is curved inward, as at 11, while

the general surface of the facing is on a vertical plane. The length of the flanges is such that when the tiles are laid in the wall the adjacent ends of flanges will overlap or reach past each other, and the oppositely-directed faces of the ends form a recess or seat 12, into which the plaster on the wall anchors and is held.

The vertical faces of the furring and facing or tile portion may be roughened, grooved, corrugated, or stepped, so that the plastering will adhere and be held with additional security.

It will be perceived that when the bricks and tiles are laid or set in walls side by side continuously to the distance or extent desired the horizontal openings through the necks of the bodies aline and form continuous air-passages throughout the wall and that the facing flanges or tiles, together with the ends of the bricks of the wall, form similar passages, and that all the horizontal passages are in vertical communication by means of the vertical passages through the necks of the tiles. It will be noted that the vertical passages are not in alinement vertically, but are arranged to lie in different vertical planes parallel with each other. It will be further observed that the passages through the body of the bricks aline horizontally throughout the wall and being in communication by the lateral passages with the horizontal passage in the neck of the brick an extensive and widespread circulation and distribution are effected throughout the ramifications of the respective passages in the wall.

Without departing from the spirit of the invention there may be certain changes of construction and arrangement made. For instance, in Fig. 2 the approaching ends of adjacent facing-flanges of the tiles are relatively inclined and the front facing of the furrings in alinement, or the approaching ends may be rounder, as seen in the lower two sets of bricks, and, as seen in Fig. 3, the body of the bricks may be formed with a neck having vertical passages, so that the horizontal channels are formed between the necks of the two adjacent bricks and the flanges and shoulders of the bricks, as seen at *a*. Again, as seen in Fig. 4, the furring-flange may extend vertically the desired distance and be formed with an inwardly-directed shoulder *b*, the material at the rear of the shoulder being continued vertically, or as far as desired, to lap with the lower end of the next adjacent flange, leaving a mortar or plaster space between the shoulder and the end of the flange. Again, in Fig. 5 the engaging ends of the vertical flanges are shouldered so that their inner faces engage in alinement, and in Fig. 6 the upper and lower walls of the neck of the brick are inclined upward and downward, respectively, as seen at *c* and *d*, and the end of one flange is shouldered to lap with the end of the next adjacent flange, as shown.

By reference to the drawings it will be observed that the bricks or tiles embodying the invention may be laid in alternate series or layers with adjacent facing-flanges lapped and forming with the face of the masonry or bricks of the wall elongated air-passages, or they may be laid in consecutive series, as seen in Figs. 3 and 5, wherein the horizontal air-passages are then formed by shoulders of the bricks, the lapped flanges, and the necks.

What I claim is—

1. A combined brick and facing-tile having an integral connection between them, formed with horizontal and vertical intersecting air-passages, substantially as described.

2. A combined brick and facing-tile connected by an integral neck-piece having air-passages therethrough, substantially as described.

3. A combined brick and facing-tile, the tile being connected to the brick by a horizontal integral connecting portion and adapted to extend beyond the face of the masonry to form an air-space between the face of the wall and the inner face of the tiles.

4. A combined brick and tile, and an integral connection between them, said integral connection having perforations constituting air-passages.

5. A combined brick and tile connected together by an integral portion, the latter being provided with vertical air-passages therethrough.

6. A combined brick and tile, the tile portion being connected to the brick portion by an integral perforated portion, the said tile having a projected portion arranged at right angles to the brick portion.

7. A combined brick and tile connected integrally, by a horizontally-projecting intermediate neck-piece, whereby an air-space is formed between the tile and brick.

8. A combined brick and tile with a perforated integral connection between the brick and tile portion, the tile portion being arranged at a suitable distance from the brick so as to form an air-space between the said portions.

9. A combined brick and tile, the brick portion having one or more air-chambers and having air-passages through the walls of the brick.

10. A combined brick and tile having a hollow brick portion and a tile portion integrally connected and having an air-space between them.

11. A combined hollow brick and tile connected integrally by a neck portion, the said tile being arranged at a right angle with the brick and neck portion.

12. A combined brick and facing-tile, the brick having one or more hollow portions, one or more necks or webs integrally connecting the brick and tile, said necks or webs having perforations therethrough.

13. A combined brick and facing-tile comprising a body having passages therethrough, a neck portion having communicating air-

passages, and a vertically-flanged facing-tile integral with the outer end of the neck.

14. A combined brick and facing-tile comprising a body, a neck portion, the body and neck portion having communicating horizontal passages therethrough and the neck having vertical passages intersecting the horizontal passage, and a flanged facing-tile integral with the neck arranged vertically.

15. A brick and tile combined, comprising a body to set within a wall, a neck extension projecting therefrom provided with a horizontal opening and vertical passages leading from said opening, and a facing-tile integral with the neck and provided with upper and lower vertical edge flanges.

16. A brick and tile combined, comprising a body to set within a wall, a perforated neck extension projecting from the body and terminating in upper and lower vertically-disposed flanges.

17. A brick and facing-tile combined, comprising a body to set within the wall, a neck portion projected laterally therefrom and terminating in upper and lower vertical flanges, and provided with horizontal and vertical passages intersecting through the neck.

18. A combined brick and facing-tile, comprising a body to set within a wall, a neck extension projecting therefrom and terminating in an upper flange having an outwardly-directed inner face and a vertical outer face, and vertically-depending lower flange having its lower end portion on a plane within the plane of the face of the tile, and the neck portion having horizontal and vertical intersecting air-passages therethrough.

19. A combined brick and facing-tile, comprising a hollow body to set within a wall, a laterally-projected neck portion extended horizontally from the body, and having intersecting air-passages therethrough, an extended outer tile-facing formed with revetment flanges adapted to lap with the flanges of similar adjacent tiles.

20. In a wall, the combination with the masonry thereof, of combined bricks and facing-tiles laid within the wall in alternate layers and continuous lateral succession, the said brick and tile portions being connected by an integral intermediate neck portion, whereby air-passages are formed between the wall and the inner surface of the facing-tile, substantially as described.

21. In a wall, the combination with the masonry thereof, of combined bricks and facing-tiles laid in the wall in contiguous layers and having communicating air-passages through an integral connection between the brick and the facing-tile, substantially as described.

22. In a wall, the combination therewith of combined bricks and facing-tiles comprising a body having openings communicating horizontally throughout the lines or layers, a neck portion projecting horizontally from the end of the brick and having horizontal and vertical communications through them, and facing-tiles integral with the neck portions and having their ends and sides contiguous to each other, whereby air-passages are formed throughout the interior of the wall.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID WILEY ANDERSON.

Witnesses:
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CHAS. G. PETTIT, Jr.