(No Model.)

L. T. DICKSON.

TILE.

No. 539,172. Patented May 14, 1895.

Fig. 1.

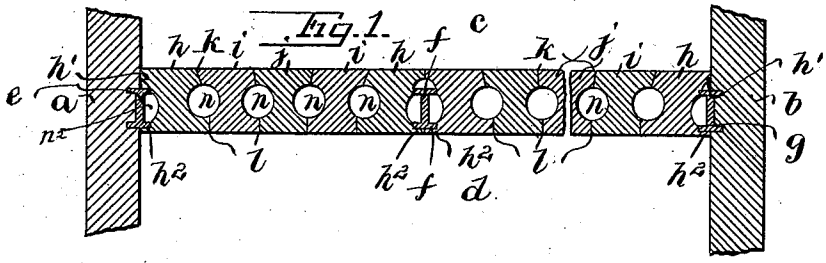


Fig. 2.

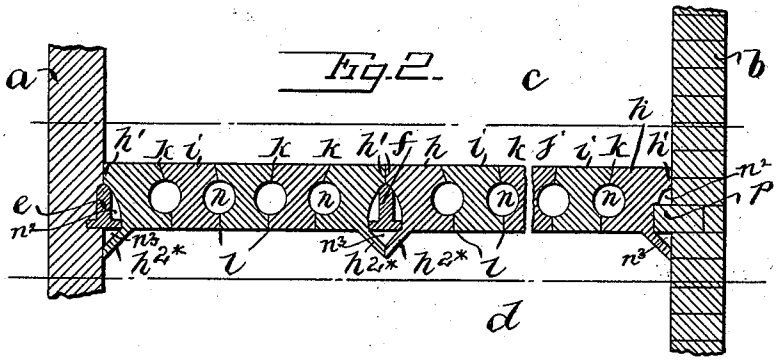


Fig. 3.

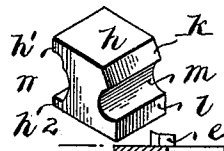


Fig. 4.

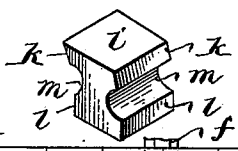


Fig. 5.

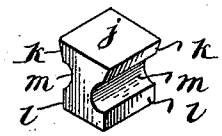


Fig. 6.

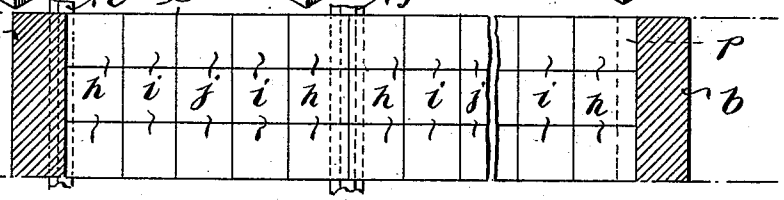
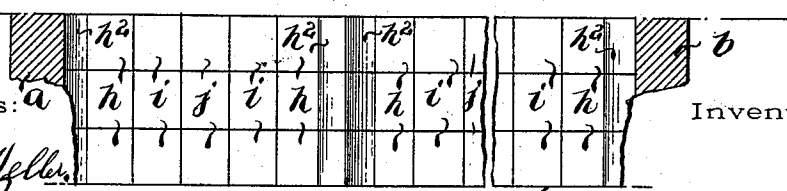


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

LEVI TAYLOR DICKSON, OF PHILADELPHIA, PENNSYLVANIA.

TILE.

SPECIFICATION forming part of Letters Patent No. 539,172, dated May 14, 1895.

Application filed April 6, 1894. Serial No. 506,609. (No model.)

To all whom it may concern:

Be it known that I, LEVI TAYLOR DICKSON, a citizen of the United States, residing in the city of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Tiles, of which invention the following is a specification.

My invention relates to a series of tiles adapted to form a flat arch, filling the space between the parallel iron beams or girders used to support the floors of buildings, the extremities of the arch finding their abutments in the flanges of the girders.

My invention consists in a flat arch composed of a series of tiles the outer ones of which are provided with pendent diagonal flanges constituting parts of open channels, as will be hereinafter described and pointed out in the claim.

In the annexed drawings, Figure 1 is a vertical section of a portion of the upright walls of a building comprising an upper apartment and a lower apartment, showing in position flanged beams or girders to support the floor and showing, also, flat arches constructed of tiles made in accordance with my invention. Fig. 2 is a similar view showing a modification in the preferred form of the lower lateral flanges of the tiles which occupy the extremities of the arch, and also showing on the right hand a wall-projection *p*, which may be employed as one of the arch-abutments, while the flange of the girder placed next said wall is employed as the other arch-abutment. Figs. 3, 4, and 5 are perspective views of the several tiles used in forming the arches. Figs. 6 and 7 are respectively plans of an upper apartment-floor and of a lower apartment-ceiling composed of said tiles.

Similar letters of reference denote similar parts in the several views.

a and *b* represent portions of the vertical walls of a building; *c*, an upper apartment, and *d* an apartment immediately below it; *e*, *f* and *g*, iron flanged girders such as are commonly employed to support flooring.

h, *i* and *j* represent the tiles used in forming the arches, tiles *h* occupying the two extremities, tiles *i* the flanks, and tile *j* being the keystone of the arch. The upper part *k* of the lateral surfaces of the tiles radiates from a center line or axis. The lower portions *l* of the ateral surfaces, are vertical.

Tiles *h* are provided with lateral flanges *h'* and h^2, the former extending over and concealing the tops and the latter extending over and covering the girders from below, as shown.

The flanges h^2 may project horizontally as in Fig. 1 or preferably diagonally as at h^{2*} in Fig. 2, and although shown plain, they may have a curvilinear and ornamental outline as desired.

m represents cavities formed in the sides of the tiles chiefly for the purpose of lightening the tiles. When the tiles are placed in juxtaposition, these cavities form continuous tubular channels *n*, Figs. 1 and 2, which may be utilized as conduits for electrical wires, or for hot air pipes or steam pipes. Channels n^2 are also formed in the tiles adjacent to the girders to constitute passages between said tiles and girders, and passages n^3 are also provided under the girders between their bottom and the diagonal flanges h^{2*}. Said flanges being integral with the end tiles and substantially at an angle of forty-five degrees with the base of the arch, constitute strengthening abutments for the arch while the passages n^3 between the flanges h^{2*} and the bottom of the girders constitute conduits particularly useful alongside of the walls for the reception of electric wires that may be run up against the face of, or within, the walls into said conduits without disfiguring the ceiling.

The upper or floor surfaces of the tiles have preferably a brick red unglazed finish, while their lower or ceiling surfaces are white glazed or enameled according to taste.

I claim—

In a fireproof ceiling the combination of walls, and girders having their sides in engagement with said walls, a series of tiles *i j* having horizontal top and bottom, and inclined sides provided with channels *n*, and end tiles *h* resting upon said girders and having pendent diagonal flanges h^{2*} and open channels n^3 between said flanges and the bottom of the girders and also between them and the walls substantially as described.

L. TAYLOR DICKSON.

Witnesses:
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GEORGE C. FRANCISCUS.