L. T. SCOFIELD.

Fire-Proof Floor and Ceiling.

No. 161,356. Patented March 30, 1875.

Fig. 1.

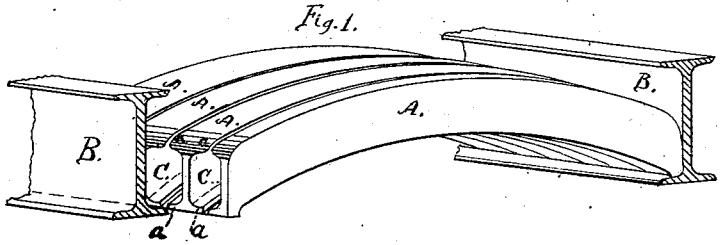


Fig. 2.

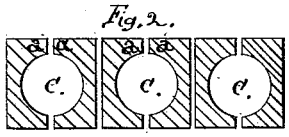


Fig. 3.

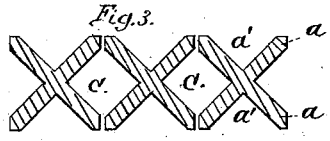
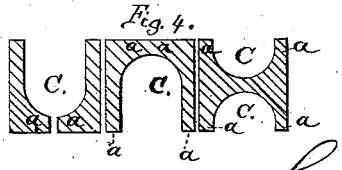


Fig. 4.



Witnesses;
Walter Miller
Mills V. Leggett.

Inventor;
Levi T. Scofield
By Leggett & Leggett.
Attorneys

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE

LEVI T. SCOFIELD, OF CLEVELAND, OHIO.

IMPROVEMENT IN FIRE-PROOF FLOORS AND CEILINGS.

Specification forming part of Letters Patent No. **161,356**, dated March 30, 1875; application filed March 6, 1875.

To all whom it may concern:

Be it known that I, LEVI T. SCOFIELD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Fire-Proof Floors and Ceilings; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings which form part of this specification.

My invention relates to the construction of tiles for use in making fire-proof floors or ceilings; and consists in forming the said tile from burnt clay, terra-cotta, cement, or other similar substances, in the form of channel or I-beams, so constructed that, when placed side by side, there will be left opposite the said channels orifices extending from one beam or support, across the intervening space, to the other beam or support, the said tile being formed to span in a single length the said space.

The sides or bounding-walls of the said channels are made to extend from the upper surface to the lower surface of the said tile, whereby the said walls serve the purpose of unbroken continuous webs, stretching in a single piece from beam to beam, whereby great supporting-strength is given to the said tile.

In the drawings, Figure 1 is a perspective view of the arch-tiles, in the form of curved I-beams, embodying my invention. Fig. 2 is a cross-section of channel-tiles, which, when placed back to back, form I-beams. Fig. 3 represents in cross-section, channel-tiles, which are recessed at top and bottom, as well as at the sides, presenting a truss-form. Fig. 4 represents, in cross-section, channel-tiles which embody my invention in principle.

In the several drawings like letters of reference represent like parts.

A are channel-tiles, formed of burnt clay, terra-cotta, cement, or any other similar and suitable material. The said tiles are formed with their upper and lower portions projecting laterally, so as to leave channels C at the sides thereof. By placing two or more of these channel-tiles side by side they form a fire-proof ceiling or floor-support, which is hollow, and has its orifices C extending from one beam or support B to the other beam or support B, and the said tiles are made to extend in a single length from one support to the other.

The sides or bounding-walls *a*, in projecting from the said tile at the top and bottom laterally, may form various shapes in cross-section. Thus the tile may take the shape of an I-beam in cross-section, or it may have the shape of a U or channel-beam, as shown in Figs. 2 and 4, or, by making the said projecting portions *a* straight instead of curved, the tile may have an X form in cross-section, as shown in Fig. 3, and by placing the said X-tiles side by side they will form, in section, a truss-shaped ceiling or support.

It is also evident that the invention is not limited to a curved form of the tile; but the said tile may be flat, so it is made to span in a single piece the distance from one beam or support B to the other beam or support B.

It will be seen that the side walls *a* extend in an unbroken surface from top to bottom of the tile A, and stretch from beam to beam. They therefore serve the purpose of webs, whereby the structure is given a great supporting-strength.

When the lateral projecting portions *a* extend from the top and bottom in the nature of flanges, the ceiling or support will have smooth upper and lower surfaces. When, however, the said projecting portions *a* take the direction shown in Fig. 3, there may or may not be left channels *a'* in the upper and lower parts of each tile.

When the projections *a* are formed as shown in Fig. 4, there may be a channeled upper surface, or there may be a channeled lower surface, or both upper and lower surfaces may be channeled—dependent altogether on the manner in which the said tile is permitted to rest.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A ceiling or floor tile, A, constructed to extend in a single length from beam to beam, and formed with lateral projecting portions *a*, whereby channels C are left, which said channels extend from beam to beam, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEVI T. SCOFIELD.

Witnesses:
FRANCIS TOMNEY,
THOMAS B. HALL.