(No Model.)

M. F. LYONS.

Pottery Shape for Fire Proof Floors.

No. 236,504. Patented Jan. 11, 1881.

Fig. 1.

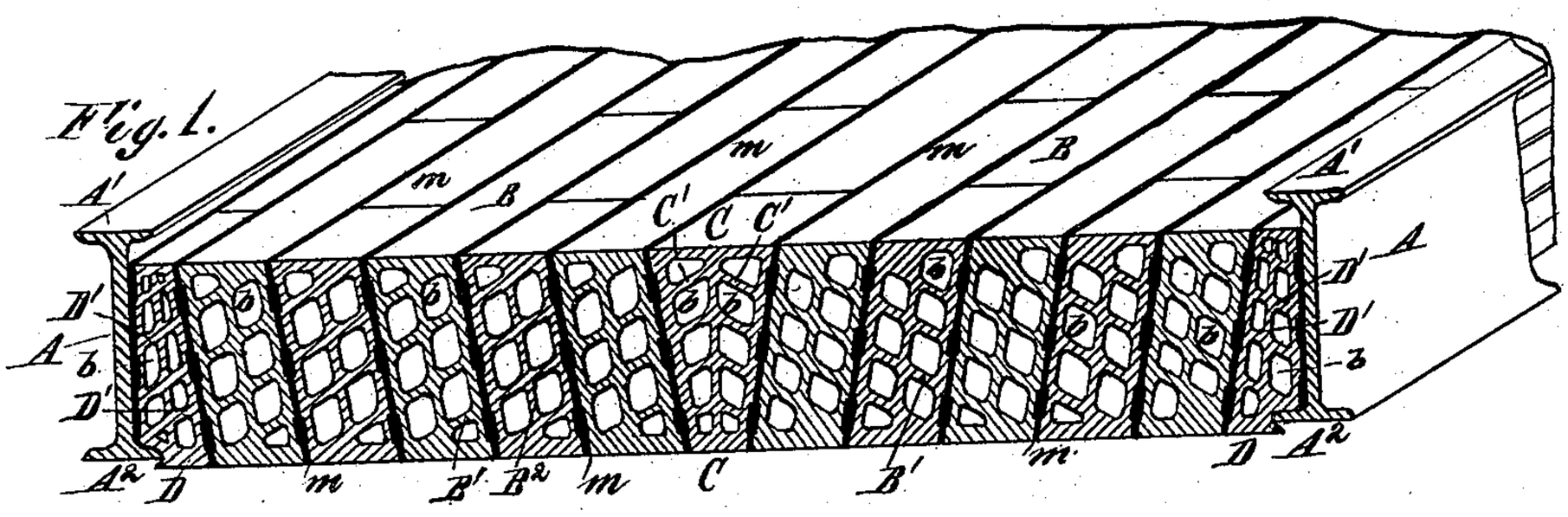


Fig. 2.

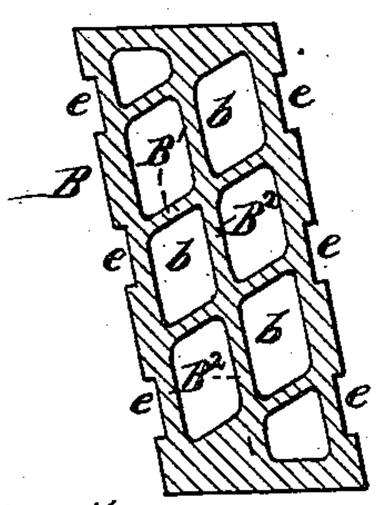


Fig. 3.

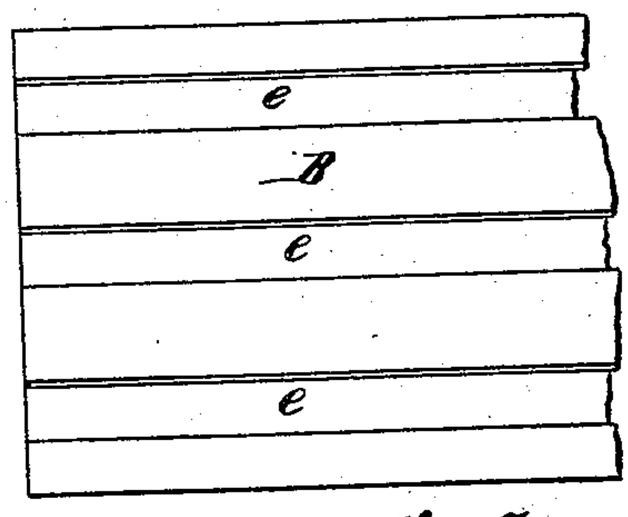


Fig. 4.

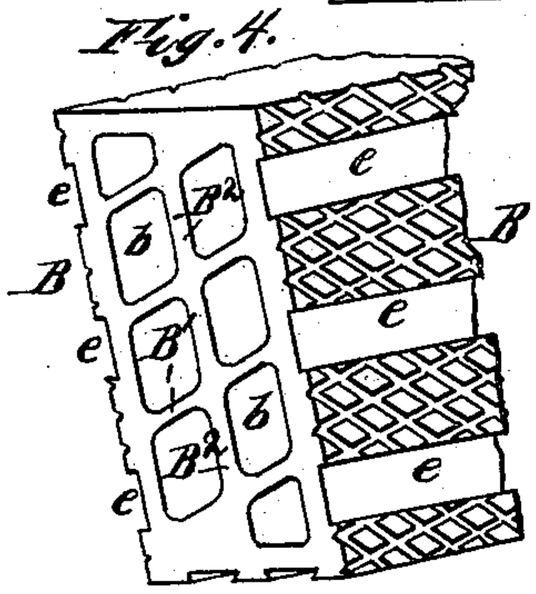
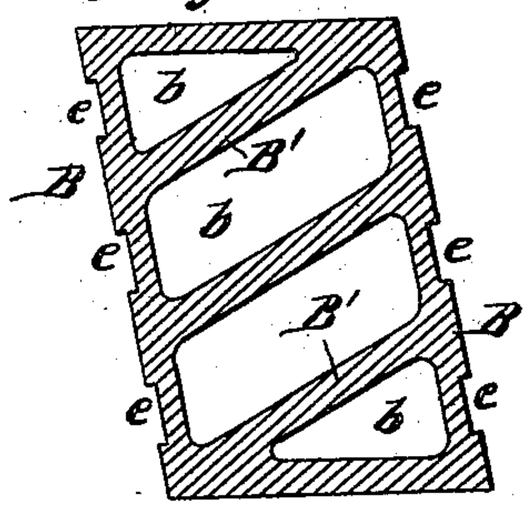


Fig. 5.



WITNESSES

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MICHAEL F. LYONS, OF BROOKLYN, NEW YORK.

POTTERY SHAPE FOR FIRE-PROOF FLOORS.

SPECIFICATION forming part of Letters Patent No. 236,504, dated January 11, 1881.

Application filed March 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL F. LYONS, a citizen of the United States, residing in Brooklyn, Kings county, in the State of New York, have invented certain new and useful Improvements relating to Pottery Shapes for Fire-Proof Floors, of which the following is a specification.

The invention applies to all that class of buildings where iron beams are extended at a little distance apart to form the skeleton of the floor.

My invention relates to the filling the interstices.

I produce blocks of peculiar form and apply them together with cement. The blocks may be of various kinds of clay, but I prefer the coarse sort known as ordinary brick material.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a perspective view of a section of the flat arch or work put together. Fig. 2 is a sectional view of one of my improved blocks. Fig. 3 is a side elevation of the same, but with part of the block broken away. Figs. 4 and 5 represent modifications, in which Fig. 4 shows the bottom surface containing two dovetailed grooves to better hold the plaster of the ceiling and the sides with cross-marks or scratches made while the clay is soft to better hold the filling-cement. Fig. 5 represents the way I propose to make my blocks without the central partition of concrete or fire-proof composition molded.

Similar letters of reference indicate corresponding parts in all the figures.

A A are the floor-beams, of rolled iron, with flanges at the top and bottom, as indicated by A′ A². My filling-blocks are, in great part, of uniform shape and of uniform internal construction. These are applied together in oblique positions. Each is made open-work, or with large apertures extending from one edge to another. The apertures are marked *b*. There are webs B′ extending across nearly horizontally, and a web, B², extending up and down the center. The contour of the exterior is that of a skewed or oblique parallelogram, as indicated by B. I apply these blocks together with a tolerably thick layer of strong mortar, as indicated by *m*. The nearly horizontal webs B′ are so arranged that when my blocks are applied together the webs B′ of one block come in line with corresponding webs B′ of the adjacent block. Thus the strain is transmitted directly. The block in the center is wedge shape in contour, as indicated by C. The blocks at each end are imperfect wedge shapes. The upper surfaces and lower surfaces are plane. These compound girders are applied together side by side, filling the entire space between the iron beams.

The joints between each of my girders and the next may be filled with mortar or left empty, as may be preferred. Either way the lower face is to be subsequently finished with plastering or hard finish and the upper face covered with concrete or analogous material, and ultimately finished on top with wood flooring, tiling, or such other surface as may be desired in any case.

Although I prefer that these blocks B C D shall be of well-baked brick clay analogous to brick, it will be understood that they may be of lighter burned material, known as "soft brick," or they may for some purposes be made of other material.

Some of the features of the invention may be used without the others. I can realize some of the advantages of the invention without the grooves *e* and the corresponding filling thereof with mortar *m;* but I prefer the whole used together.

Tiles have before been made hollow with one web across each, so that when the tiles were peculiarly arranged the strains would be transmitted from one to another in a manner analogous to the effect in mine; but mine will allow of being transposed in position or put together without care in the arrangement, and the duplication and close arrangement with the moderate inclination of my webs will insure that they are always in line with each other, and the arch is light and strong. My construction has the further advantage that

the shapes B can all be formed from a single mold, which is not the case in the tiles above referred to.

I claim as my invention—

The shapes B, adapted to be arranged promiscuously in a series each side of the central shape, C, in combination with the latter and with suitable end shapes, D, as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand at New York city, New York, this 30th day of March, 1880, in the presence of two subscribing witnesses.

MICHAEL F. LYONS.

Witnesses:

CHARLES C. STETSON,

WM. C. DEY.