(No Model.)

O. FÖRSTER.

ARCH STONE.

No. 604,658. Patented May 24, 1898.

Fig. 1.

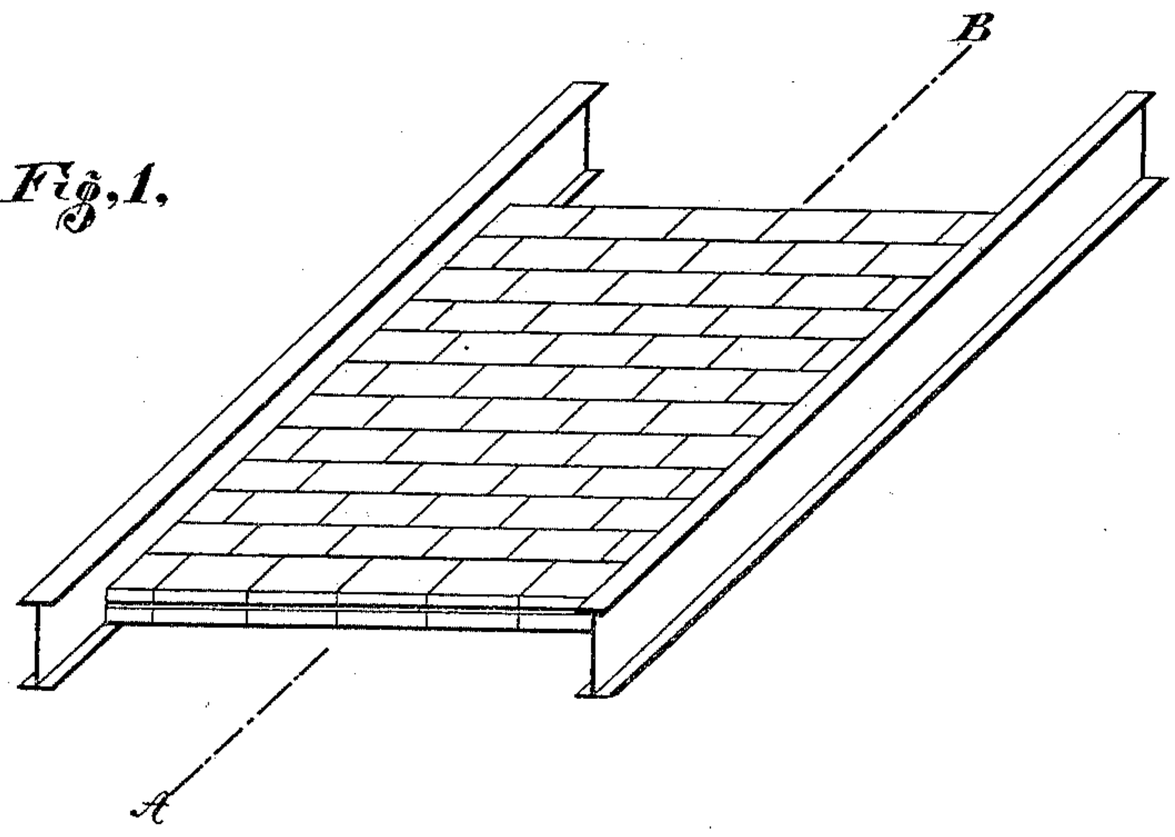


Fig. 2.

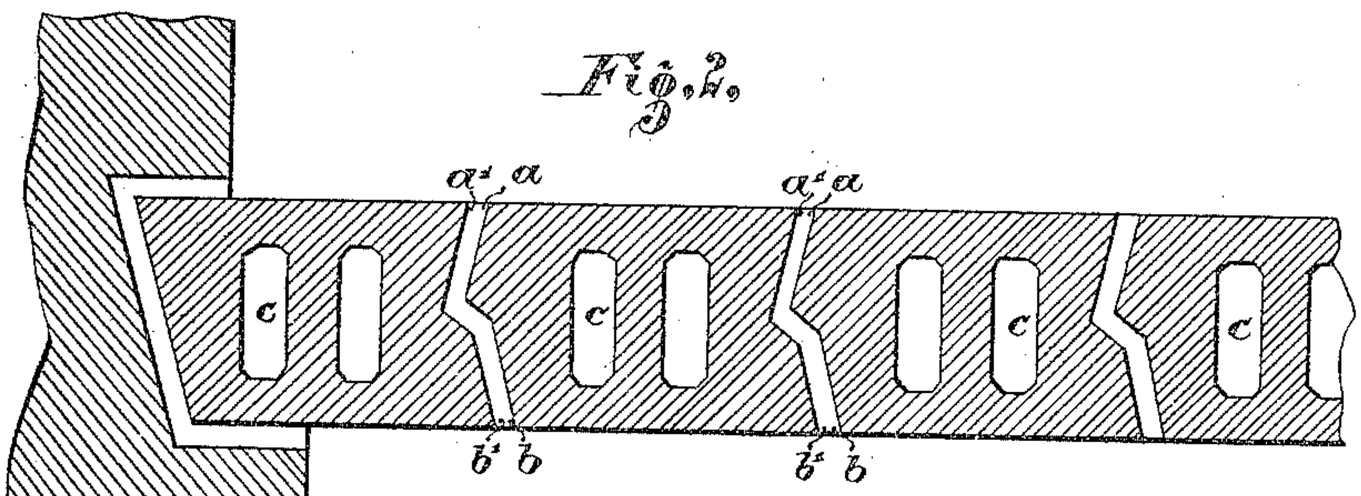
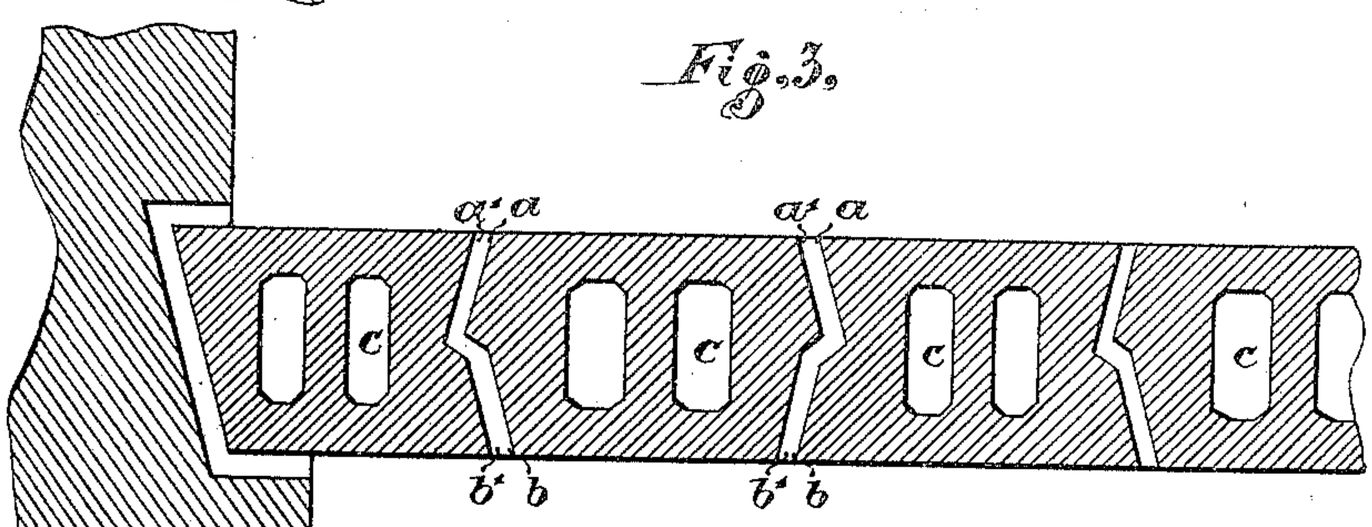


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

OTTO FÖRSTER, OF WERNIGERODE, GERMANY.

ARCH-STONE.

SPECIFICATION forming part of Letters Patent No. 604,658, dated May 24, 1898.

Application filed December 23, 1896. Serial No. 616,780. (No model.) Patented in England March 26, 1896, No. 6,846.

To all whom it may concern:

Be it known that I, OTTO FÖRSTER, architect, a subject of the King of Prussia, Emperor of Germany, residing at Wernigerode, in the Kingdom of Prussia and German Empire, have invented new and useful Improvements in Arch-Stones or Voussoirs, (for which I have obtained Letters Patent in Great Britain, No. 6,846, dated March 26, 1896,) of which the following is a specification.

My invention relates to the construction of blocks or bricks (hereinafter called "blocks") designed, when arranged in rows or series, to form fireproof and fungus-proof ceilings and roofs. With roofs as heretofore constructed—that is to say, with ordinary building-bricks—it has been necessary to give a certain amount of rise to the roof in order to prevent it from falling in.

Now according to the present invention each block or tile is provided upon the opposite sides, which extend transversely to the supporting-beams, with an abutment or rib, said abutments or ribs being formed by having the sides of the blocks provided with two oppositely or approaching inclined walls, with a short central wall of still different pitch or incline, as hereinafter described, so that a ceiling or roof constructed of such blocks is self-supporting and can be constructed quite flat—that is to say, without any central rise.

In constructing a floor or roof according to my invention the blocks or tiles are arranged end to end in a series of rows, the blocks of one row breaking joints with the blocks of the adjacent rows and each row of blocks interlocking by means of transverse ribs or abutments upon the opposite sides of the blocks, it being understood that the said ribs or abutments extend transversely between the supporting-beams and form practically unbroken supporting-shoulders between each row of said blocks.

Figure 1 of the accompanying drawings illustrates a roof constructed with blocks according to my invention and arranged between two T-girders. Fig. 2 is a longitudinal section on the line A B of Fig. 1, showing to a larger scale one form of block according to this invention. Fig. 3 is a longitudinal section showing a modified form of block.

As will be seen, each block, excepting the end ones, has at its ends upper half-inclined surfaces a a', against which bears the correspondingly-inclined surface a a' of the next adjacent blocks. Each block has, further, at its lower half downwardly-inclined surfaces b b', which are adapted to bear against the corresponding bearing-surface b b' of the next adjacent block.

The inclined surfaces a a' or b b' may be arranged on the two sides of each block, either parallel with each other, as in Fig. 2, or oppositely inclined to each other, as in Fig. 3, so as to form in the one case a block having a lateral projecting portion or abutment on the upper half of one side and on the lower half of the opposite side, while in the other case the said projecting portions or abutments are on the same half of the block.

As will be seen, the pair of inclined surfaces a b a' b' of each block are connected by intermediate inclined surfaces d d', struck on a different angle of inclination from the aforesaid inclined surfaces and arranged to abut against the corresponding surfaces of the adjacent blocks. It will thus be seen that the blocks are different from others which are constructed on the principle of a mere interlocking of a tongue and groove in that my construction with oppositely-directed abutments enables the blocks to be laid to form a straight or flat ceiling or roof. The blocks may be formed with holes c running in the direction of their length, with the object of effecting a reduction in the weight of the roof and also of providing air insulation.

The advantages which accrue from the use of those improved blocks in the construction of ceilings or roofs consist, in addition to a great saving in cost, also in affording security against fire and against the formation of fungus. Moreover, ceilings or roofs so constructed are advantageous from a hygienic and sanitary point of view by reason of dispensing with intermediate or false roofing.

Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed, I declare that what I claim is—

The herein-described floor construction, comprising supporting-beams and a series of rows of tiles placed end to end, the tiles of one row breaking joints with those of the ad-

jacent rows and each block being provided upon the two opposite sides which extend transversely to the supporting-beams, with two oppositely-inclined walls, said walls extending toward each other and joined about midway of the sides of the tile by a short inclined intermediate wall to provide a continuous transverse rib upon opposite sides of each row of tiles, and the ribs of one row of tiles interlocking with the ribs of the adjacent rows, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

OTTO FÖRSTER. [L. S.]

Witnesses:
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M. C. MUTH.