

(No Model.)

G. M. MOULTON & E. V. JOHNSON.

FIRE PROOF TILE FURRING.

No. 257,366.

Patented May 2, 1882.

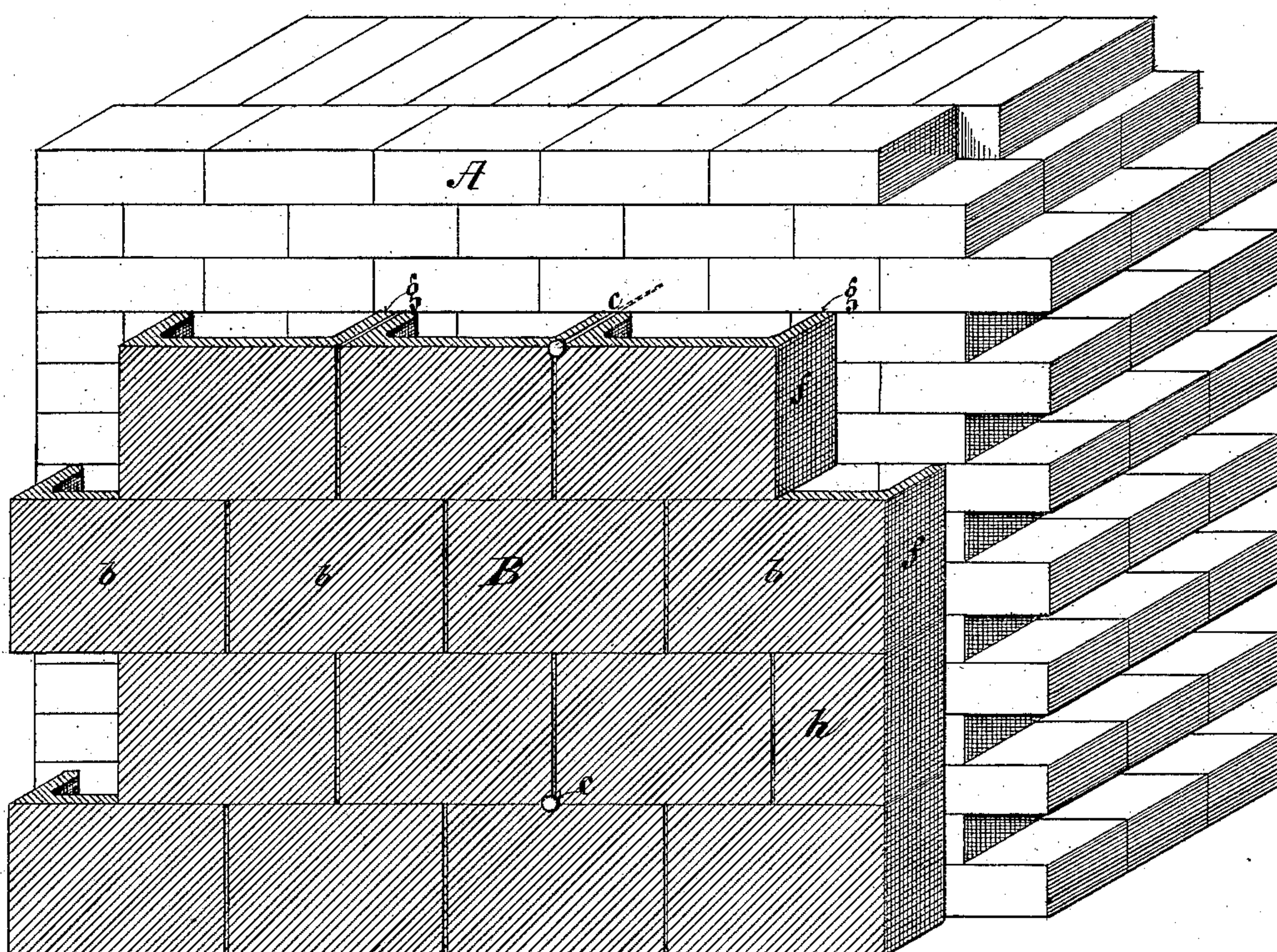


Fig I,

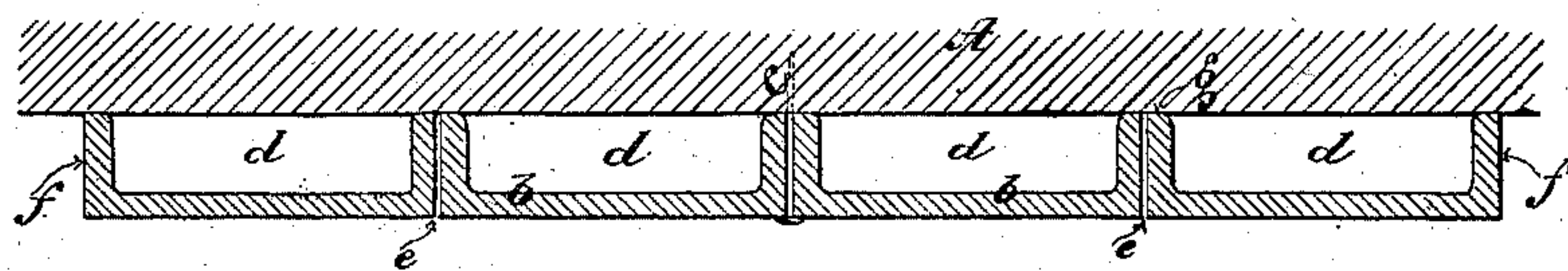


Fig II,

Witnesses
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FIRE-PROOF-TILE FURRING.

SPECIFICATION forming part of Letters Patent No. 257,366, dated May 2, 1882.

Application filed October 29, 1880. (No model.)

To all whom it may concern:

Be it known that we, GEORGE M. MOULTON and ERNEST V. JOHNSON, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in the Manufacture and Construction of Fire-Proof-Furring Tiles; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which make a part of this specification.

Our improvements relate, first, to the manufacture of a fire-proof tile for the purpose of furring for outside walls, vaults, or other parts of buildings, where freedom from dampness and its deleterious effects is required; second, to the manner of laying the tile in place, whereby a continuous air-space is obtained over the whole of the furred surface, and also to the method of securing the tile by means of nails and mortar, as herein described.

Our invention consists in the form and application of the furring-tiles for the purpose required.

We propose to use baked fire-clay for making the tiles, but are aware that any non-conducting material suitable to be made in this form—such as cement composition, porous terra-cotta, plaster-of-paris, and various other materials—could be used for the purpose. In making the furring-tiles of baked clay they are made in pairs, in a hollow form, and are thus run through the die, dried, and put into the kiln for burning; but when they are delivered at their place of use they are split apart through a groove at each end, which allows them to hold their shape during the process of manufacture, but which yields readily to the tap of a mason's trowel when applied to separate them. The tile when made of clay or other suitable material, may be readily cast in molds or shaped by hand; but we prefer the manufacture described as producing the best results for the least money.

In the accompanying drawings, Figure I is an isometrical view of a brick wall furred with tile furring. Fig. II is a horizontal section through the furring, showing method of application.

Like letters refer to like parts in both of the figures.

A is a brick wall, which we represent furred on its inside face with the fire-proof-tile furring B. Each separate tile *b* is made to project from the wall, as shown, thus leaving the air-spaces *d*. This projection can be made more or less at will by manufacturing the tile with the end *f* to the depth required. Each tile is laid to "break joint" on every alternate course, thus allowing the air in the spaces *d* to be freely circulated through the same over the whole of the furred surface. Nails *c* are driven through the joints *e* at suitable distances apart, thus securely holding the furring-tile to the brick-work. Each tile is bedded in mortar on every course, and the edge *g* next to the wall is well stroked with mortar and pressed to its place, thus allowing the outside face to be laid to a line. Plumb-jambs are built by using the half pieces *h*, as shown.

The principal purpose for which we have designed this furring-tile is for use in the construction of substantial buildings, where it is found necessary by reason of the porosity of brick walls to use some form of material that will project from the interior face of the wall, thus leaving an air-space, and at the same time present a suitable surface on the other side to receive the plaster coat and finish. The usual plan for accomplishing this result has been to tack strips to the brick wall forming the required projection, and then nail wood or iron laths to the same, or, as is occasionally done, to build the main walls of sufficient thickness to allow them to be built with a small air-space in the center, called "cavity walls."

The objections to the foregoing methods are numerous; but the following reasons will be sufficient to explain the necessity for a radical change in this system of furring for buildings. When wooden laths are secured to the strips mentioned the effect, when plastered, is to produce a surface that is easily distinguished from the remaining sides of a room by the dark discolorations of the laths and strips showing through the plaster. This is caused by the moisture coming through the walls and being absorbed by the wood, thus dampening the plaster sufficient to accumulate dust and present an unclean and irregular appearance. This fact is equally true of iron lath, the moisture causing it to rust and discolor the plaster,

and in addition the changes in temperature subjects the iron form of lath to the damaging effects of expansion and contraction, causing the plaster coat to be cracked and unsightly.
5 The objection and consequent unpopularity of the cavity form of wall is the additional weight, space, and material required by its use, rendering it too expensive for the purpose. By the use of the fire-proof-tile furring all these defect-
10 ive features are obviated, while at the same time a substantial, economical, non-decaying, and fire-proof material is obtained with all the advantages but none of the defects of the numerous forms of furring at present in use.
15 Having thus described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

The combination of the furring-tiles *b*, made in the shape shown, applied to a brick or other form of wall, with the nails *c*, and forming the air-
spaces *d*, whereby a continuous circulation of air is allowed over the whole of the furred surface, thus avoiding dampness and affording means for ventilation, all as substantially set forth and described.

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Witnesses:

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