

H. MAURER.
Fire-Proof Buildings.

No. 156,808.

Patented Nov. 10, 1874.

Fig: 1.

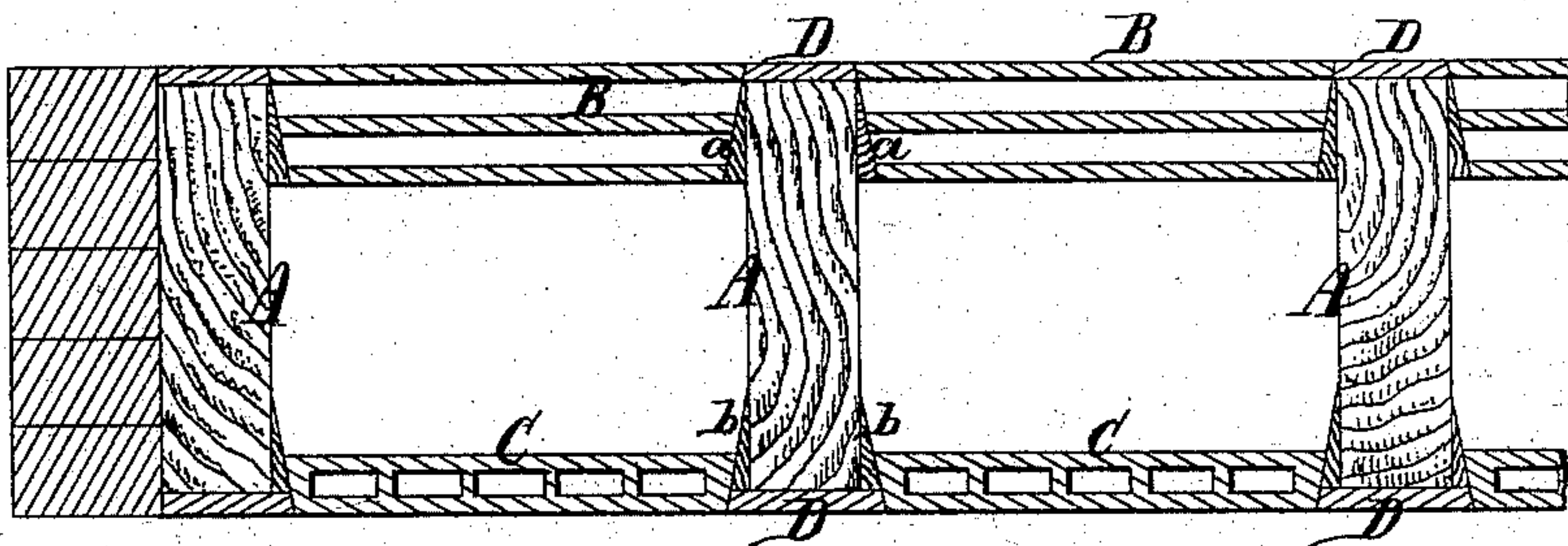
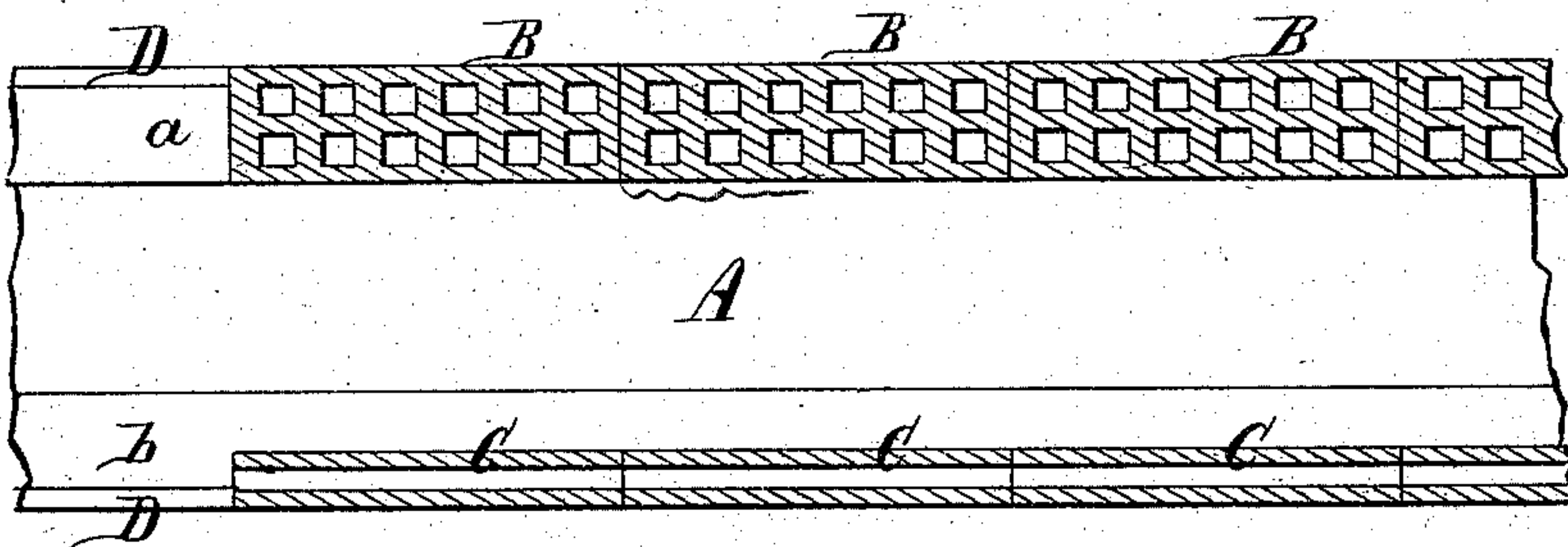


Fig: 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY MAURER, OF NEW YORK, N. Y.

IMPROVEMENT IN FIRE-PROOF BUILDINGS.

Specification forming part of Letters Patent No. **156,808**, dated November 10, 1874; application filed October 21, 1874.

To all whom it may concern:

Be it known that I, HENRY MAURER, of the city, county, and State of New York, have invented a certain new and useful Improvement in Fire-Proof Buildings, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which—

Figure 1 represents a transverse section. Fig. 2 is a longitudinal section.

Similar letters indicate corresponding parts.

This invention consists in the combination of two sets of hollow tiles with the floor-beams of a building, one set of tiles being supported by tapering or wedge-shaped strips formed on or secured to the upper parts of the beams, while the other set of tiles rests upon similar strips formed on or secured to the lower portions of said beams; the ends of the tiles being beveled off to correspond to the tapering strip on the beams, each of said tiles being made of such length as to span the distance between the beams, and constructed so that their outer surface will be depressed below, or flush with, the end of the said beams, in such a manner that one set of tiles forms the floor, and the other set the ceiling, in a building; and that between the floor-tiles and the ceiling-tiles an air-space is formed, which promotes ventilation, and adds to the security of the building. The edges of the beams are protected by tiles, which are fastened to the same, and join the floor-tiles and the ceiling-tiles.

In the drawing, the letters A A designate the floor-beams in a building. In the example shown these beams are of wood; and to the sides of each of them are secured two sets of tapering strips, *a a b b*, with their narrow edges pointing upward. The strips *a a* form the supports for the floor-tiles B B, while the strips *b b* support the ceiling-tiles C C. These tiles

are, by preference, made hollow, and their ends are chamfered off to correspond to the bevels of the strips *a a b b*, so that if said tiles are placed between the beams they will be supported by said tapering strips, the tiles B somewhat above, and the tiles C somewhat below, the lower edges of said beams. The edges of the beams above and below are protected by thin intermediate tiles D, which fit between the tiles B and the tiles C, respectively, and which are fastened in position by cement, or by any other suitable means. Between the floor-tiles B and the ceiling-tiles C are formed air-spaces D, which promote ventilation, and increase the security of the building against fire. When wooden beams are used these air-spaces protect said beams against decay.

My improvement is applicable to floors or ceilings with wooden or iron beams; and if iron beams are used, the beveled surfaces, which serve to support the tiles, are formed in the rolling-mill together with bodies of said beams.

If desired, the tiles B and C may be made arched, in order to increase their strength.

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

In combination with the joists A, having the projecting tapering strips or bearing-surfaces *a b*, the tiles B C, having their edge-surfaces constructed to correspond with the bearing-surface *a b*, each of said tiles being formed to span the distance between the beams, all constructed substantially in the manner herein shown and described, for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand.

HENRY MAURER.

Witnesses:

W. HAUFF,
CHAS. WAHLERS.