

S. MYERS.
FIRE-PROOF BUILDING.

No. 176,034.

Patented April 11, 1876.

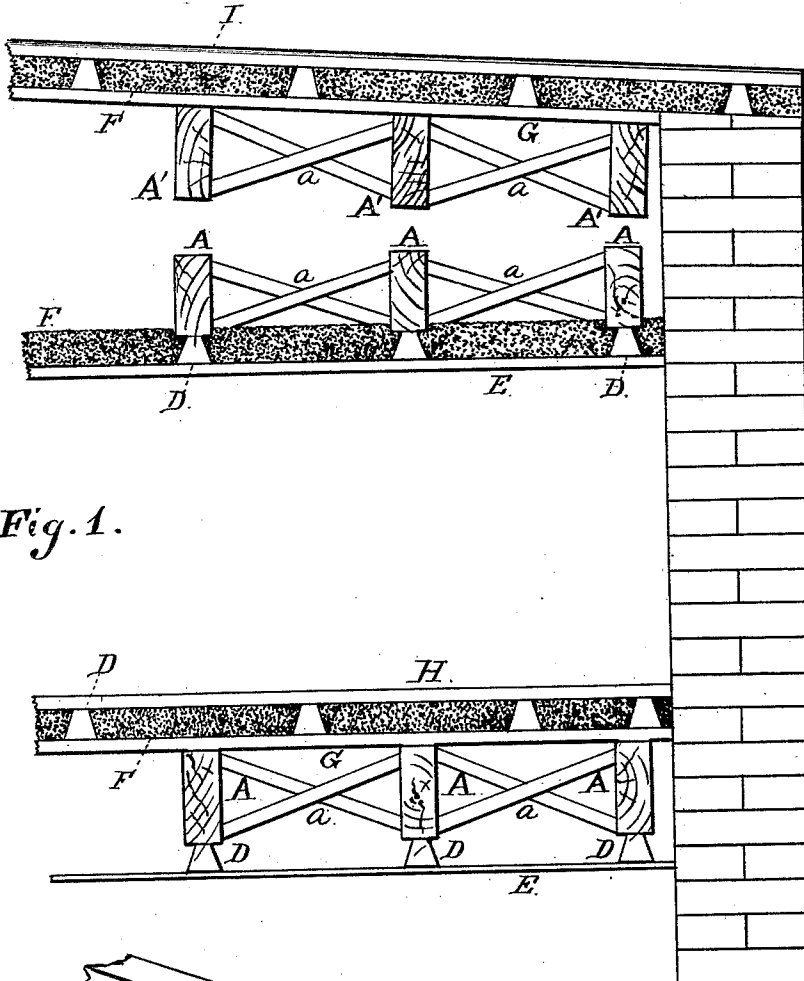


Fig. 1.

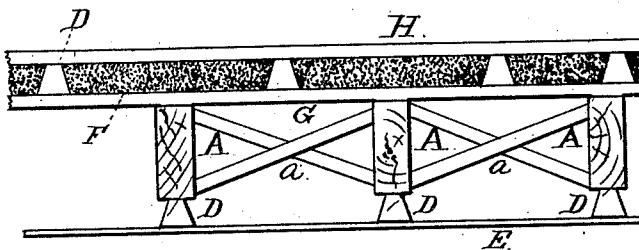


Fig. 2.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN FIRE-PROOF BUILDINGS.

Specification forming part of Letters Patent No. **176,034**, dated April 11, 1876; application filed February 23, 1876.

To all whom it may concern :

Be it known that I, SYDNEY MYERS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fire-Proof Floors, Ceilings, and Roofs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a front elevation, showing my improved fire-proof floor, ceiling, and roof.

The object of my invention is to render the floors, ceilings, and roofs of houses approximately fire-proof, as will be hereafter more fully explained.

A A are the floor and ceiling joists, and A' joists or rafters for supporting the roof. The joists are all strengthened by the usual bridging *a*. D D are beveled strips or keys, which are attached to the bottom edges of the floor and ceiling joists. E E are the laths, which are nailed on to the strips and plastered over in the usual manner to form the ceiling. Liquid concrete F is poured in on top of the laths between each joist before the floor is laid, so as to form a filling of solid concrete of about two inches in thickness when hard, thus rendering the ceiling fire proof. Each span of concrete thus laid is similar in effect to an arch, in that it is self-supporting, it being rendered so by the strips or keys, which form abutments to secure the ends of the span, thus relieving the laths of the pressure which would otherwise be upon them from the weight of the concrete.

The floor and roof are rendered fire-proof, as follows: A floor of common cullings, G, is laid on the top of the joists. The strips are laid across the said floor between the said joists, and the concrete filling laid in between the strips, flush with the top edges thereof, and the dressed flooring H and sheathing I are then laid and nailed onto the strips.

In case of fire, it will be seen that the fire cannot extend from one floor to another, nor can it extend from the roof to below, if it should in any wise be communicated to the sheathing, because of the concrete being interposed above the ceilings and below the floors and sheathing, as described.

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

1. The strips D attached to the bottom edges of the joists, and beveled to form abutments for the concrete filling F, in combination with the lathing or ceiling E, substantially as and for the purposes set forth.

2. The flooring G, of common boards, laid on the top of the joists, in combination with strips D, laid across the said flooring and between the joists, concrete filling F laid between the strips, and dressed flooring or sheathing over all, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

SYDNEY MYERS.

Witnesses:

R. W. CHAMBERS,
G. W. BLYTHE.