

(No Model.)

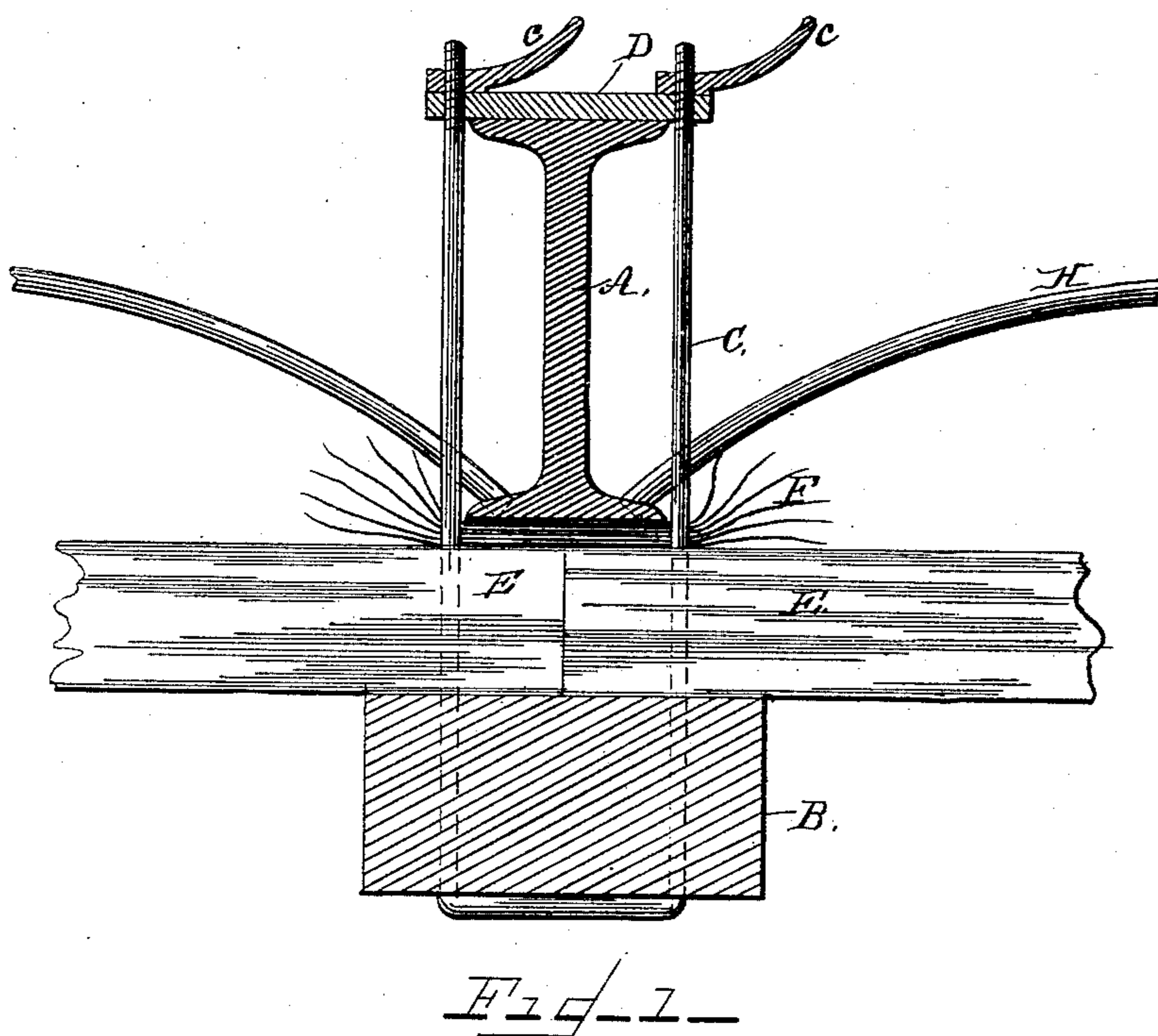
3 Sheets—Sheet 1.

J. G. MEYERS.

FIRE PROOF FLOOR AND CEILING.

No. 354,565.

Patented Dec. 21, 1886.



Witnesses
R. W. Bishop.
Jno. H. Allen

John G. Meyers,
Inventor

By his Attorney

H. J. Tunis

(No Model.)

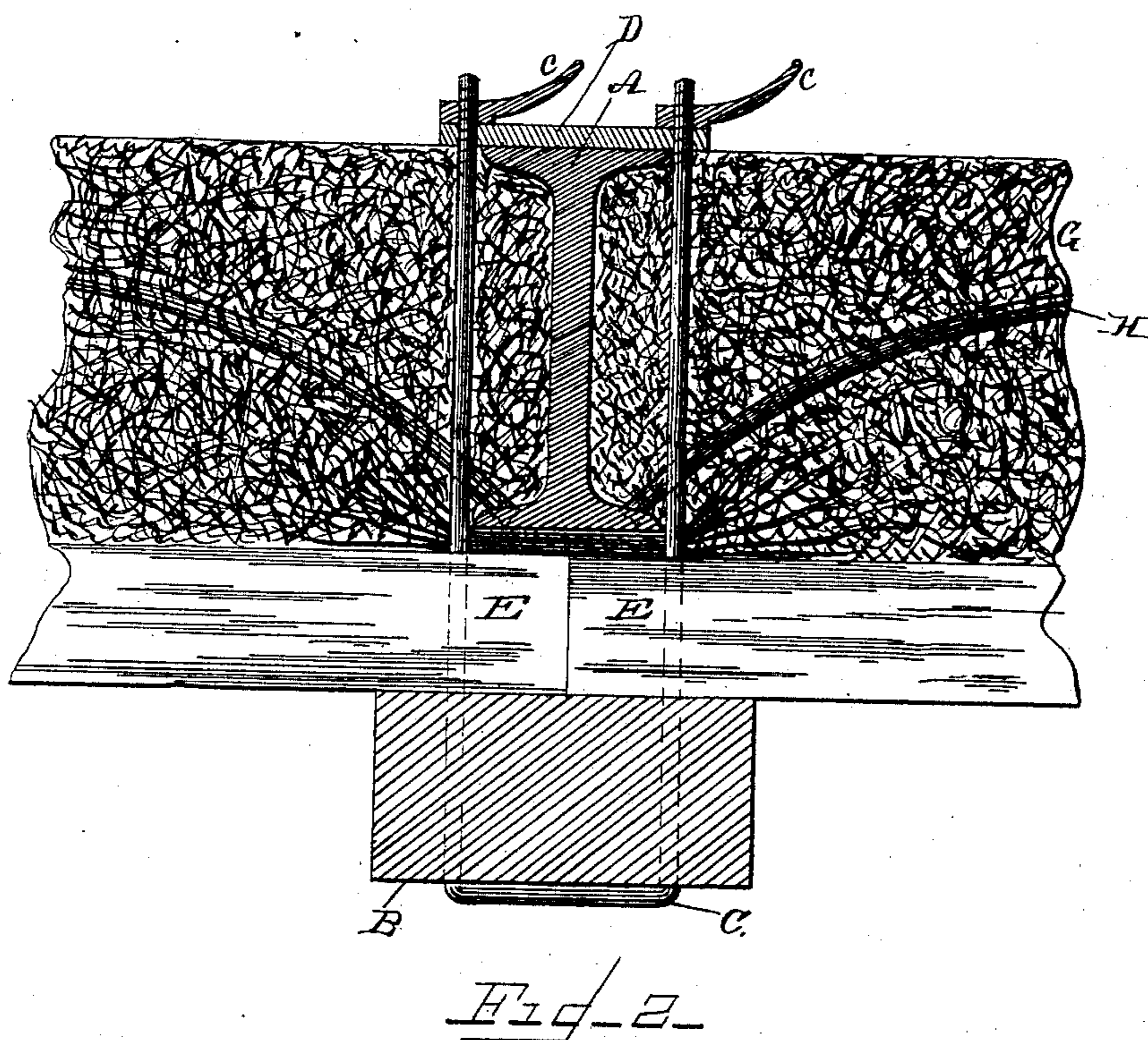
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Patented Dec. 21, 1886.



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3 Sheets—Sheet 3.

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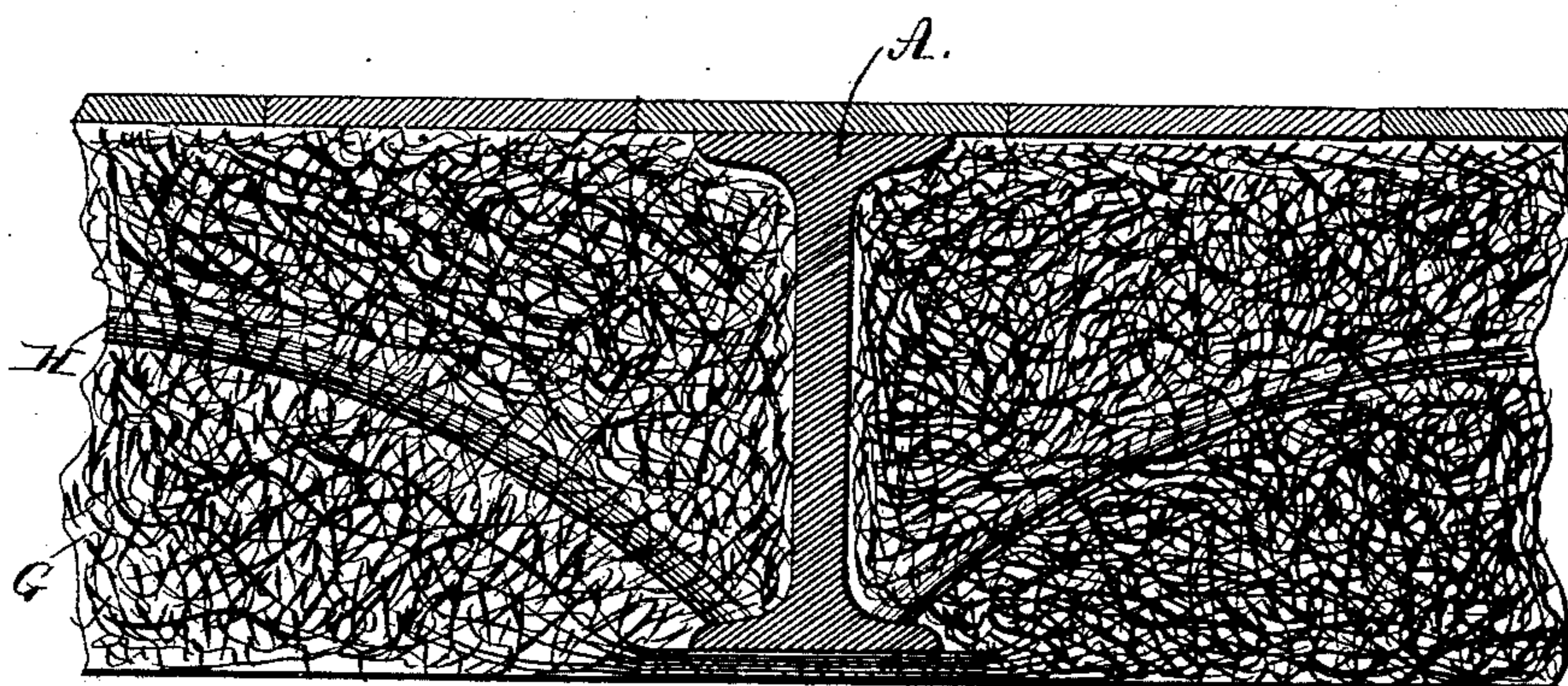


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN G. MEYERS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF
ONE-HALF TO H. L. CRANFORD, OF SAME PLACE.

FIRE-PROOF FLOOR AND CEILING.

SPECIFICATION forming part of Letters Patent No. 354,565, dated December 21, 1886.

Application filed May 13, 1886. Serial No. 202,067. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. MEYERS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Artificial Floors and Ceilings; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to artificial stone or fire-proof floors and ceilings for buildings, and the object is to provide a cheap, strong, and durable fire-proof floor or ceiling; and to this end the novelty consists in the construction of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same letters of reference indicate similar parts of the invention.

Figure 1 is a transverse section of a floor-girder, showing the mold and braces in position ready to receive the concrete or cement forming the artificial stone. Fig. 2 is a similar view showing the concrete or cement in position; and Fig. 3 shows the floor as it appears when finished, after the mold has been removed.

A is an ordinary iron floor-girder, which is supported in the walls of the building in the usual manner.

B is a wooden beam suspended a short distance below and parallel with the girder A by means of a series of brackets, C, which extend up and pass through a plate, D, resting upon the top of the girder.

c c are clamp-nuts, by means of which the bracket and beam B may be adjusted with reference to the iron girder.

After the beam has been adjusted to position the timbers E E are laid from beam to beam, and a series of wires, or iron laths, or short sections of barbed-wire fencing, F, laid under the girder. The body or mass of the

concrete or cement G is then placed between the girders on the timbers, and while the mass is in a plastic state a series of braces, H H, are inserted in it, their ends resting upon the foot of the girder, as shown. These braces may be iron rods or, preferably, gas or water pipes, and of course will be of a size to correspond to the span of the girders, and by making them of an arc or arch shape the greatest strength and stability is attained. After the cement or concrete has set the form or mold is removed, and the space or interstices formed in the wires F, under the girder, are filled flush with the ceiling or bottom of the concrete by an asbestos, mineral wool, or other fire-proof or non-conducting plaster, and the whole finished by white-coating or in any other suitable manner. I have found a plaster composed of asbestos fiber and plaster-of-paris to answer admirably for a fireproofing composition for protecting the girder. After the form or mold is removed the holes left by the brackets are filled with cement, and the surface of the cement is flush with the top of the girder.

Any form or style of flooring may then be laid—such as a tile floor in a cement base—or by setting a few joists in the concrete a tongue-and-groove flooring may be laid.

After the flooring is finished it will be seen that the whole flooring is absolutely fire-proof, and the girder is protected from any heat or warping whatever by the asbestos or plaster coating.

A very important advantage of this method of laying the flooring is that a minimum of space is occupied between the rooms, and a handsomely-finished or flush ceiling is obtained, instead of the old style of corrugated ceiling, where arches are formed between the girders.

It will readily be understood that my invention is applicable to ground floors as well as the ceilings and roofs of buildings.

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

The herein described and shown fire-proof floor and ceiling, comprising the following ele-

ments in combination: a series of girders supported in the walls of the building, a concrete body between the girders, a fire-proof composition below each girder, and braces, as H,
5 placed in the concrete body with their ends resting upon the foot of a girder, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN G. MEYERS.

Witnesses:

HENRY L. CRANFORD,
R. W. BISHOP.