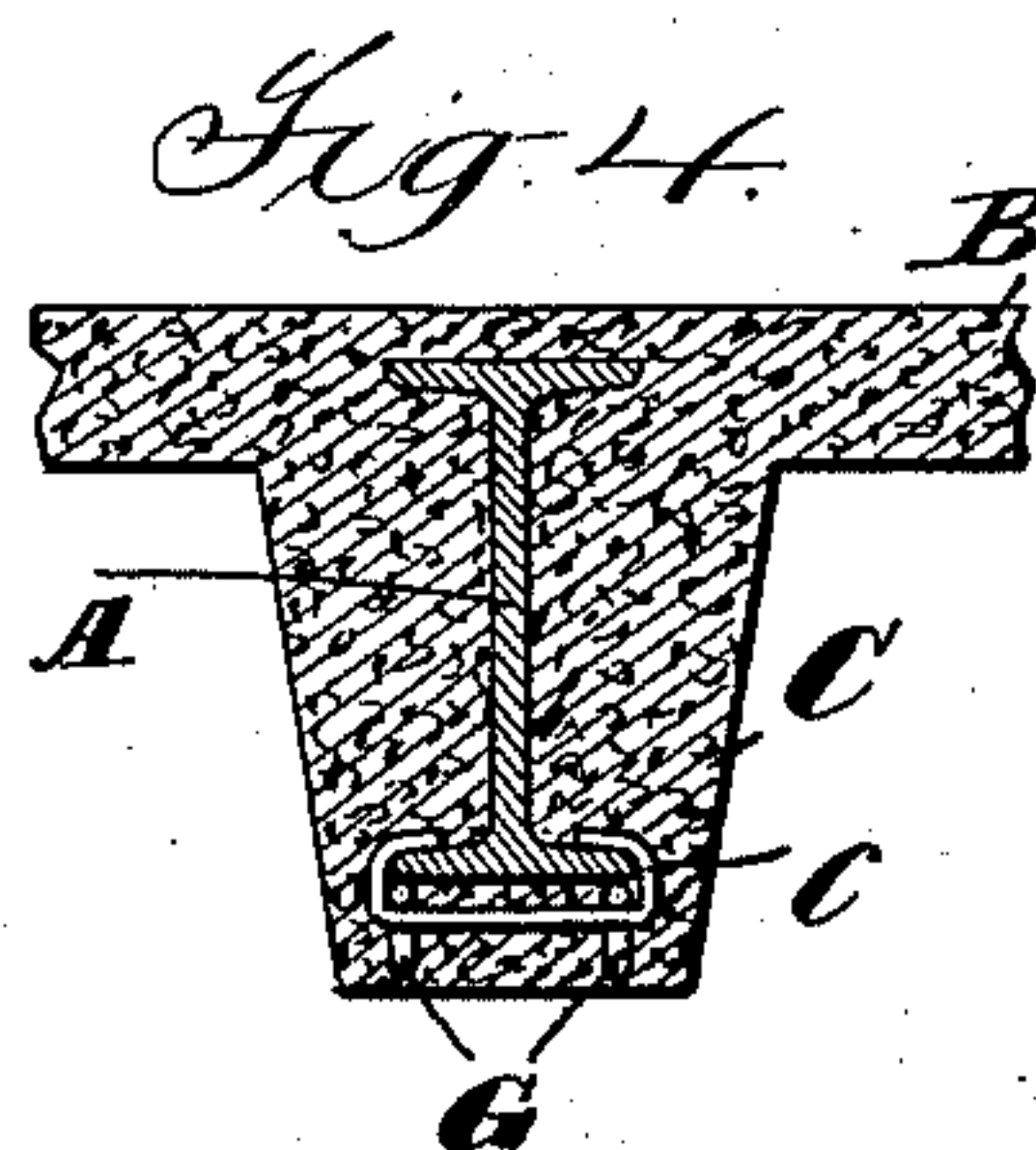
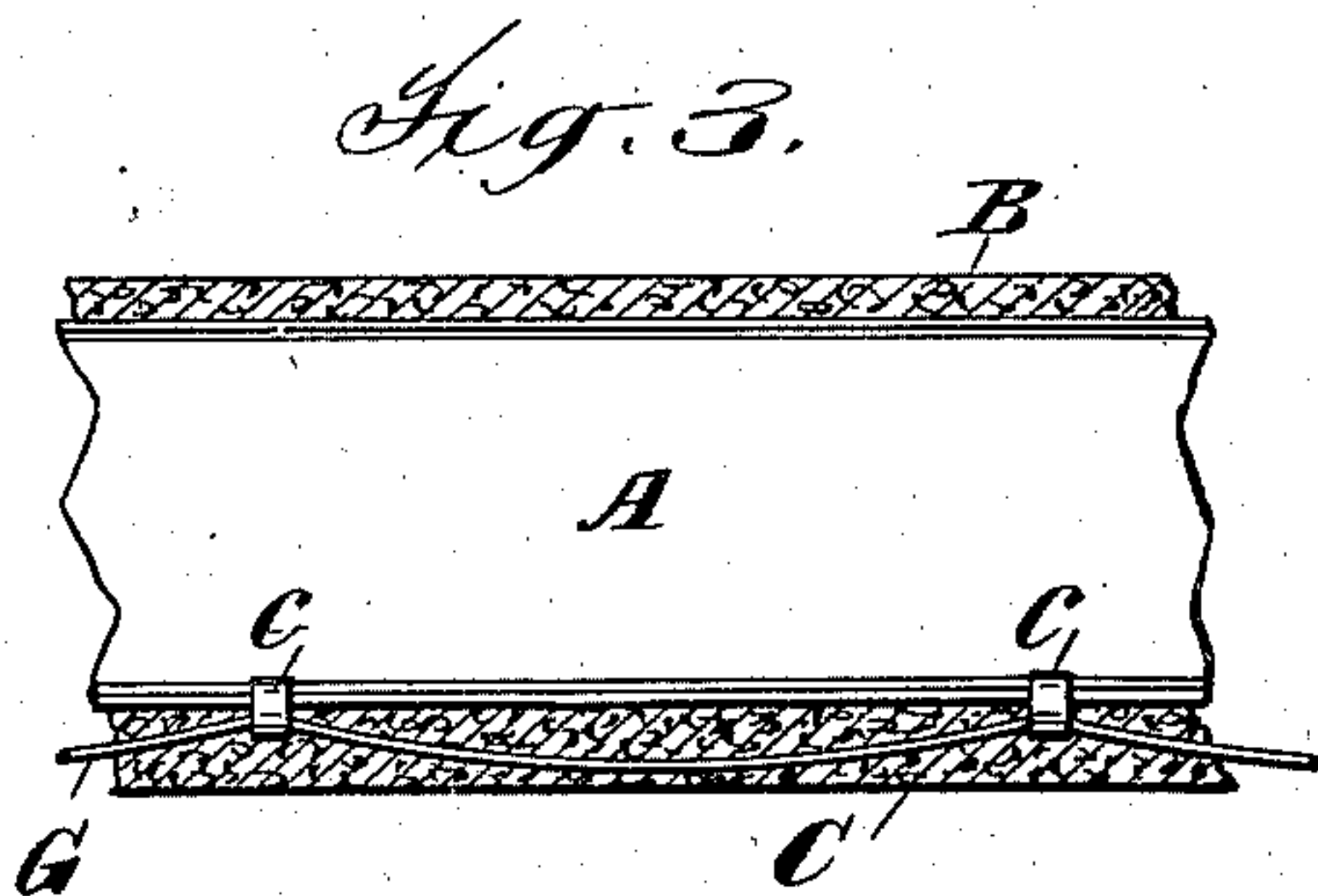
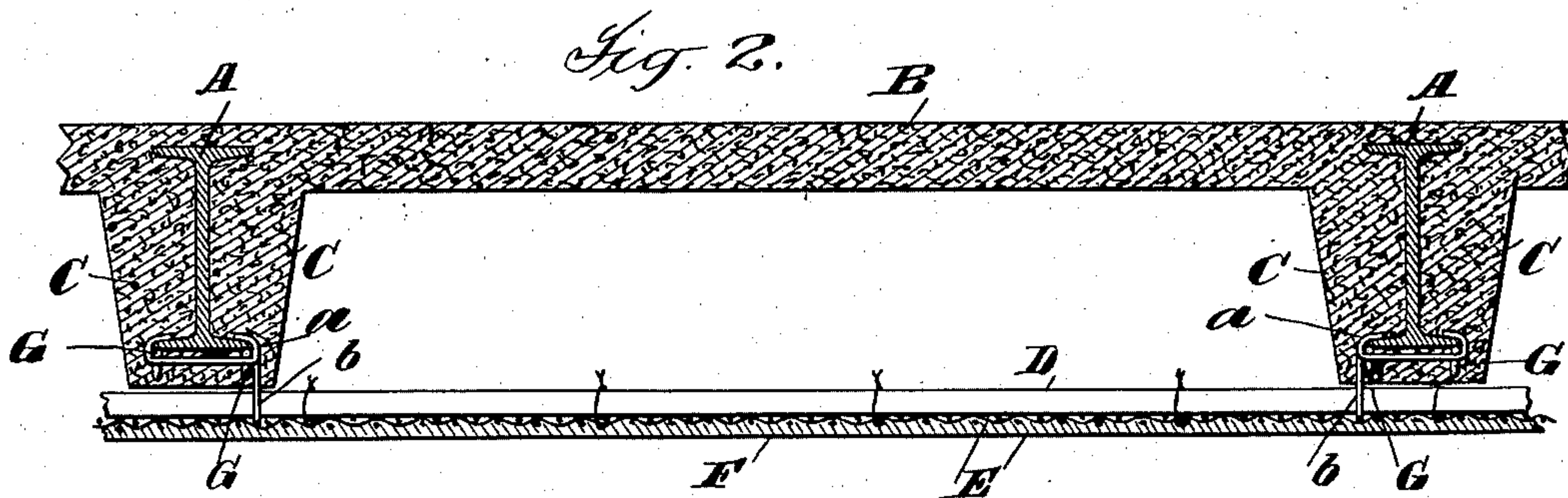
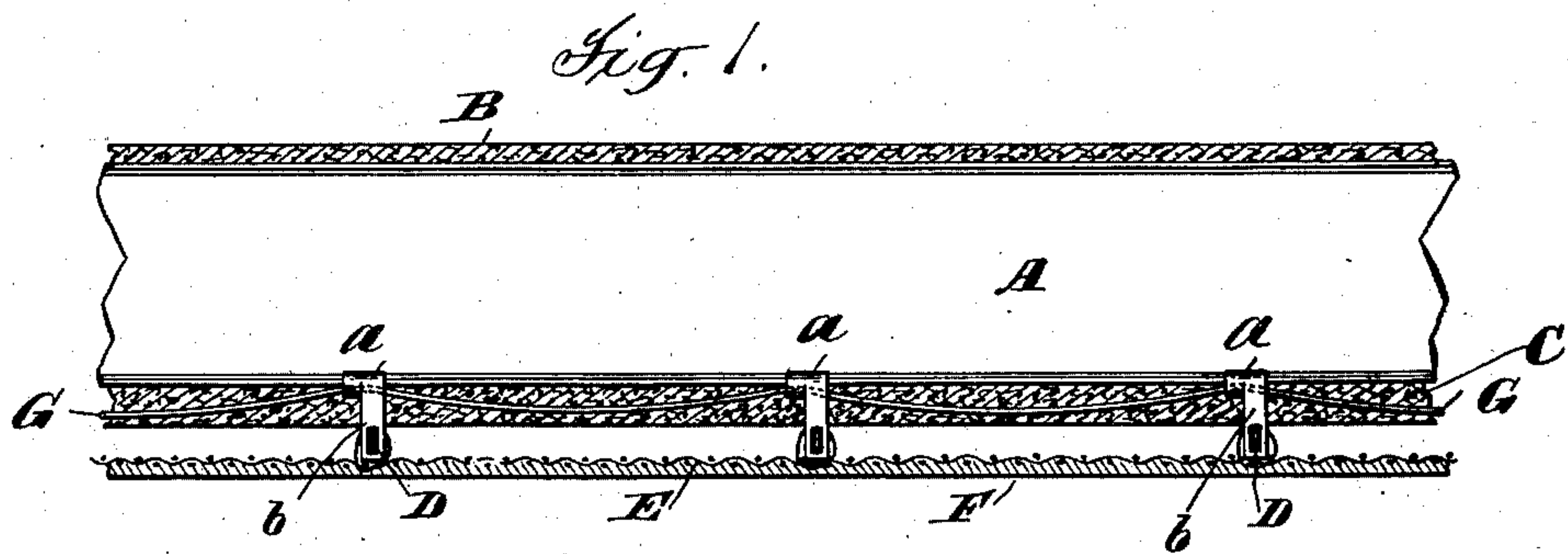


No. 741,934.

PATENTED OCT. 20, 1903

C. H. SCAMMELL.
FIREPROOF CONSTRUCTION.
APPLICATION FILED JUNE 23, 1902.

NO MODEL.



Attest:
J. H. Graves
J. Galiani.

Inventor:
Charles H. Scammell
by Philip Sawyer Rice & Kennedy
Attys

UNITED STATES PATENT OFFICE.

CHARLES H. SCAMMELL, OF NEW YORK, N. Y., ASSIGNOR TO THE NEW JERSEY WIRE CLOTH COMPANY, OF TRENTON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

FIREPROOF CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 741,934, dated October 20, 1903.

Application filed June 23, 1902. Serial No. 112,756. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SCAMMELL, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Fireproof Constructions, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of the present invention is to provide improved means for supporting the layer of concrete which is now commonly employed on the under side of iron beams in concrete-floor constructions, it having been found difficult in practice to assure the retention of this layer of concrete. The present invention provides means by which this layer of concrete is strengthened and supported, so as to be efficiently retained in place, while at the same time the metal-work used for this purpose is light and cheap and readily put in place in building the floor construction and the other steps in such construction in no way interfered with.

For a full understanding of the invention a detailed description of a construction embodying the same in preferred forms will now be given in connection with the accompanying drawings, forming a part of this specification, and the features forming the invention will then be particularly pointed out in the claims.

In the drawings, Figure 1 is a section longitudinally of the beams, showing my invention applied in connection with a concrete-floor and suspended-ceiling construction. Fig. 2 is a cross-section of the same. Fig. 3 is a section similar to Fig. 1, showing my invention applied to a construction having no suspended ceiling. Fig. 4 is a cross-section of Fig. 3.

The beams A are shown as of the common I form and the floor construction as consisting of the ordinary web of concrete B, with bodies of concrete C extending downward along the webs of the beams and around and under the bottom flanges of the beams. In the construction shown in Figs. 1 and 2 the bottom flanges of the beams carry clips a of the usual form, having the downwardly-

extending arms b, in which are supported the ceiling-rods D, carrying the usual ceiling of metal lathing E and plaster F.

The features thus far described are shown as of common form, except for the special feature of the present invention, which consists of the wires G, extending along the opposite flanges of the beams and supported by the clips a, these wires G being preferably drooped between the clips, as shown, so as to secure the desired support of the bodies of concrete below the flanges of the beams. This drooping of the wires between the clips secures a better support of the concrete, and the tensile strength of the wires is utilized at once to support the concrete and any weight thereon and strengthen the concrete instead of not being utilized until after deflection, as may be the case if they are horizontal, which may permit the concrete to deflect sufficiently to weaken or crack the concrete before the tensile strength of the wires is utilized, a very strong and efficient construction being thus secured. It will be seen that these wires G may readily be put in place in attaching the clips a, being simply inclosed by the clips when the latter are bent around the flanges of the beams, and that they interfere in no way with the process of filling in the concrete onto the centering, which may be supported in any suitable manner, so as to provide for the concrete web B and beam protection C. When a suspended ceiling, with the clips a, is not to be used, the wires G may readily be put in position by the use of special clips c, as shown in Figs. 3 and 4, these clips being arranged at suitable distances apart to secure the desired support and position of the wires. While the clips a c are shown as holding the wires G close up to the bottom flanges of the beams at the points at which the clips are applied and the wires drooped between the clips on the curve naturally resulting from sagging of the wires and this construction is preferable, it will be understood that my invention is not thus limited, but that the broader features of the invention may be embodied in constructions in which the clips are so formed that the wires are supported throughout their length

at the desired distance below the bottom flanges of the beams and extend horizontally without the substantial droop shown in the drawings, or the wires may be supported close to the beam by the clips and then bent sharply downward to the level desired. It will be understood also that the wires may be positioned below and at one side of the beam-flange instead of directly under it, if desired, and that wires additional to the two shown may be used.

What I claim is—

1. In a fireproof floor or similar construction, the combination with beams and a beam protection consisting of a body of concrete or similar plastic material covering the lower part and under side of the beam, of a beam-protection support consisting of separate wires extending parallel with the beams at such a distance from the beams as to support the concrete on the under side of the beams and embedded in the concrete body, substantially as described.

2. In a fireproof floor or similar construction, the combination with beams and a beam protection consisting of a body of concrete or similar plastic material covering the lower part and under side of the beam, of a beam-protection support consisting of separate wires extending parallel with and below the beams and supported at intervals from and close to the bottom of the beams and drooped between their points of support so as to support the concrete on the under side of the beams and embedded in the concrete body, substantially as described.

3. In a fireproof floor or similar construction, the combination with beams and a beam protection consisting of a body of concrete or similar plastic material covering the lower part and under side of the beam, clips on the flanges of the beams, and a beam-protection support consisting of separate wires supported by said clips and extending parallel with and below the beams at such a distance from the beams as to support the concrete on the under side of the beams and embedded in the concrete body, substantially as described.

4. In a fireproof floor or similar construction, the combination with beams and a beam protection consisting of a body of concrete or similar plastic material covering the lower

part and under side of the beam, clips on the flanges of the beams, and a beam-protection support consisting of separate wires extending parallel with and below the beams and supported at intervals from and close to the bottoms of the beams by said clips and separated from the beams between said clips so as to support the concrete on the under side of the beams and embedded in the concrete body, substantially as described.

5. The combination with a flanged beam A and beam protection C of concrete or similar plastic material, of clips on the lower beam-flange and a beam-protection support consisting of wires G on opposite sides of the center of the beam extending along and below the bottom flange at such a distance from the flange as to support the concrete on the under side of the flange, said wires being supported by said clips and embedded in the concrete, substantially as described.

6. The combination with a flanged beam A and beam protection C of concrete or similar plastic material, of clips on the lower beam-flange and a beam-protection support consisting of wires G on opposite sides of the center of the beam extending along and below the bottom flange at such a distance from the flange as to support the concrete on the under side of the flange, said wires being supported by said clips and embedded in the concrete, and a suspended ceiling of lathing and plastic material supported by said clips, substantially as described.

7. The combination with a flanged beam A and beam protection C of concrete or similar plastic material, of clips on the lower beam-flange and a beam-protection support consisting of wires G on opposite sides of the center of the beam extending along and below the bottom flange and supported by said clips and drooped between the clips so as to support the concrete on the under side of the flange and embedded in the concrete, substantially as described.

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

CHAS. H. SCAMMELL.

Witnesses:

ROBT. L. WINNE,
GEO. W. MOORHEAD.