

No. 719,379.

PATENTED JAN. 27, 1903.

J. SCHRATWIESER.
FLOOR AND CEILING CONSTRUCTION.

APPLICATION FILED FEB. 7, 1902.

NO MODEL.

Fig. 1.

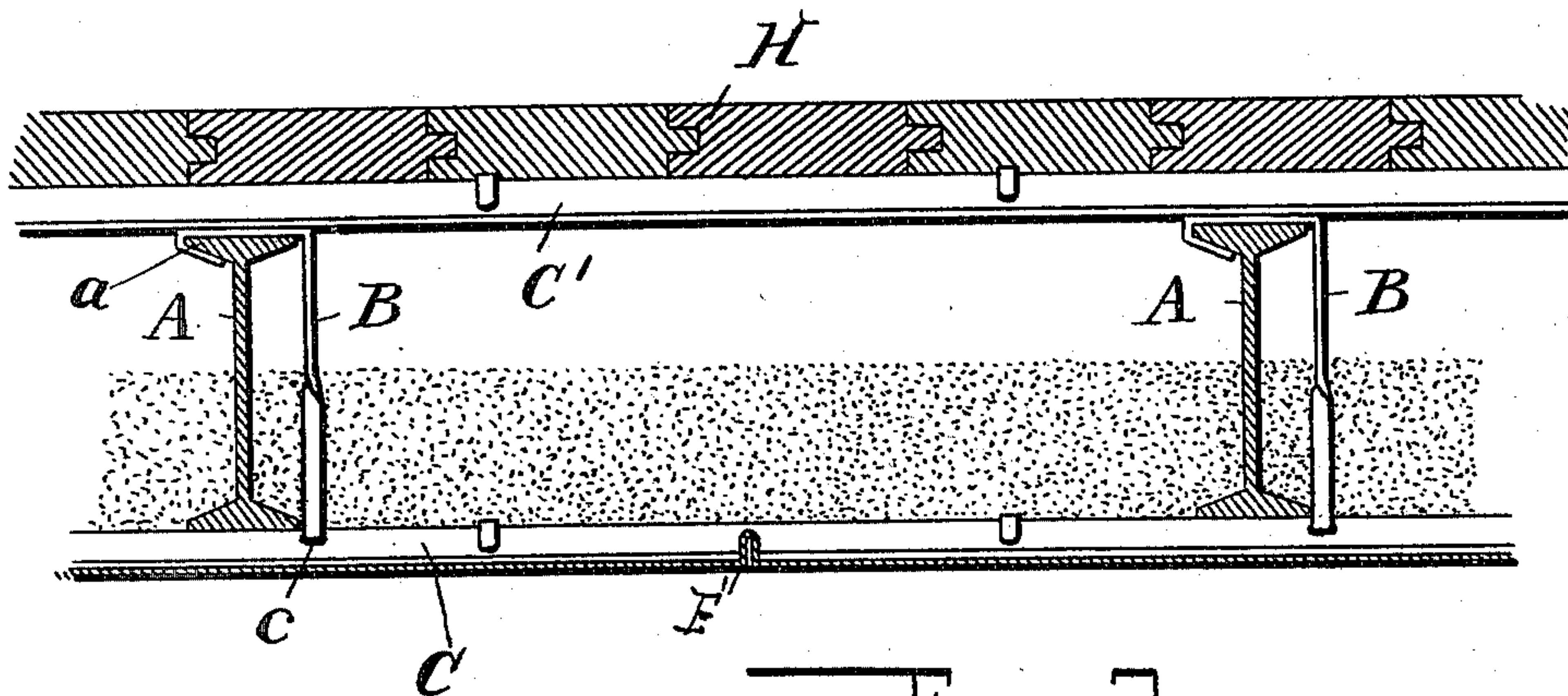


Fig. 2.

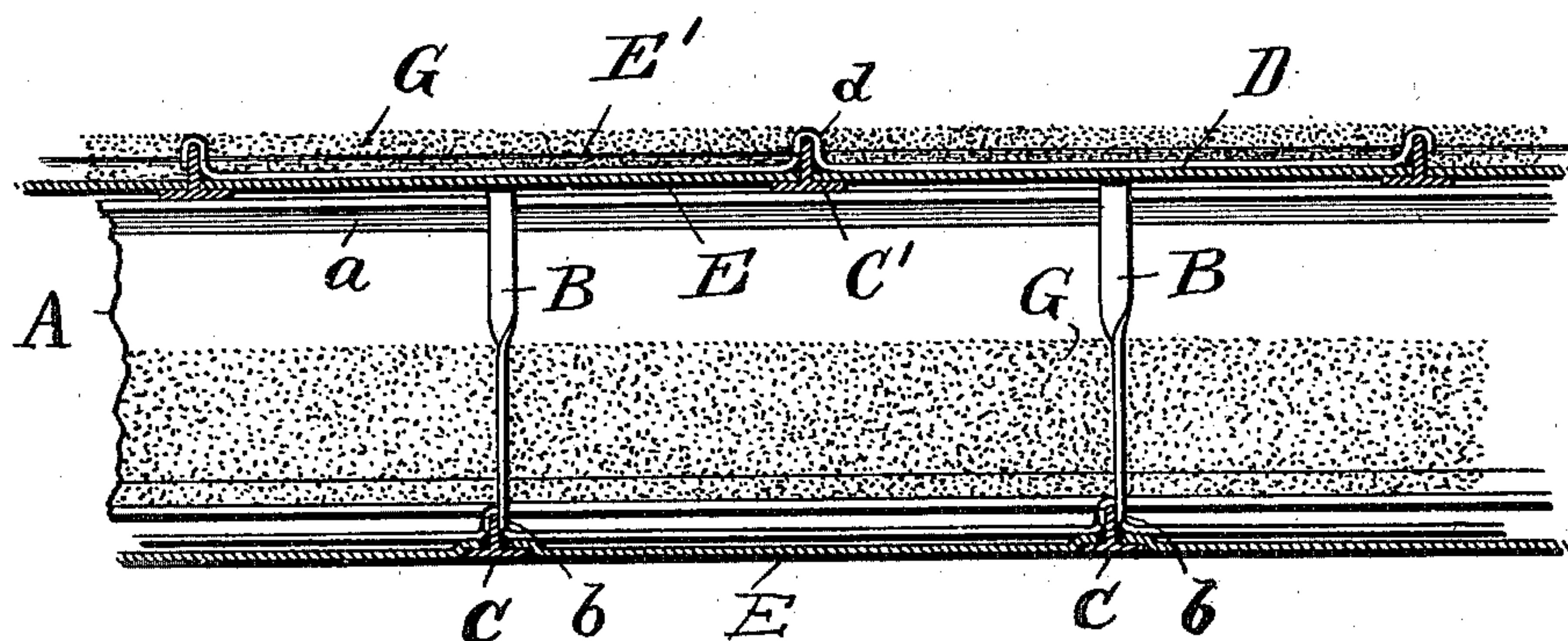
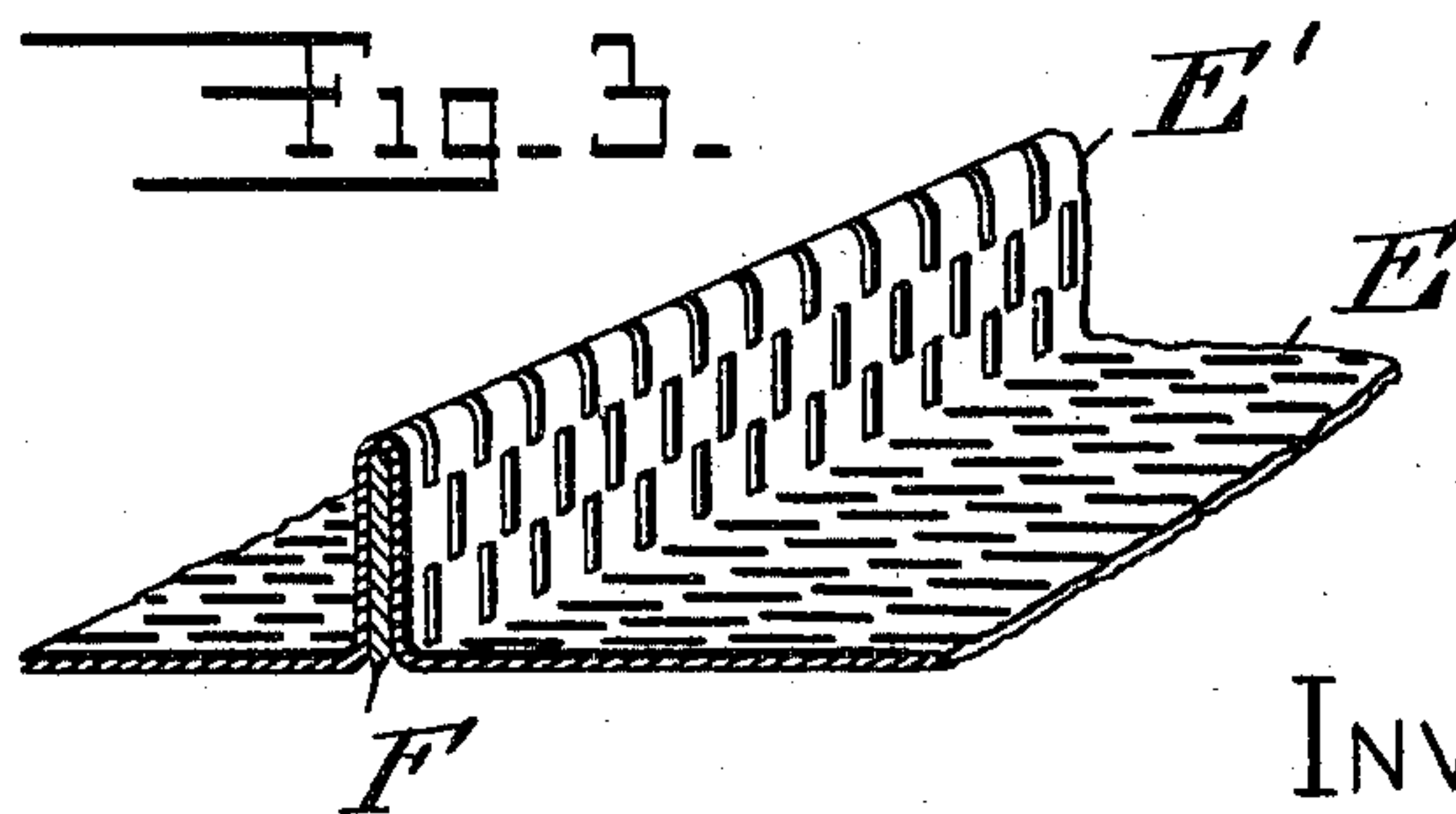


Fig. 3.



WITNESSES:

J. B. McGirr.
E. H. Dwyer.

INVENTOR

Jacob Schratwieser.

By Stephen J. Cox.
Attorney.

UNITED STATES PATENT OFFICE

JACOB SCHRATWIESER, OF BROOKLYN, NEW YORK, ASSIGNOR TO SCHRATWIESER FIREPROOF CONSTRUCTION COMPANY, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW JERSEY.

FLOOR AND CEILING CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 719,379, dated January 27, 1903.

Application filed February 7, 1902. Serial No. 93,026. (No model.)

To all whom it may concern:

Be it known that I, JACOB SCHRATWIESER, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Floor and Ceiling Constructions, of which the following is a specification.

My improvements relate particularly to that portion of a building intermediate the floors and ceilings proper and which is connected to the I-beams or girders of the building and forms a support for the said floors and ceilings.

The objects of my improvements are, among others, to furnish a strong and durable construction of this character of simple and inexpensive construction which may be easily assembled, owing to the fact that most of the parts may be made and fitted in a place where machinery is convenient and after being so made may be taken to the building and placed in position with a comparatively small amount of manual labor.

My invention consists of the combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings.

Figure 1 is a transverse vertical section of a floor and ceiling construction embodying my improvements. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail of one of the strengthening-ribs in the sheet metal.

The cross-pieces C', forming part of the floor construction, are set upon the upper flanges *a* of the I-beams A. As shown in the drawings, they are of T cross-section and have their double flanges resting upon said beams and the single flanges extending upwardly. The cross-pieces C, which support the ceiling, are of the same form as C' and are hung from the upper flanges of the I-beams by means of the suspenders B, secured to the said upper flanges by having their upper ends hooked over the same, as shown in Fig. 1. Their lower ends *b* are passed through the perforation *c* in the vertical flanges of the cross-pieces C and turned over the upper edges thereof. As shown, these suspenders

are made of flat metal strips and are turned or twisted intermediate their ends so as to present their flat surfaces to both cross-pieces C and flanges *a*.

Between the cross-pieces C or C' the metal lath or sheets of metal E are placed. They are supported by having their edges rest upon the horizontal flanges of said strips and are given additional strength by the crimped or folded portions E', which are turned up at right angles to the surface of the sheets or panels E and may be provided with a core F, consisting of a strip of metal. These portions E assist the sheet metal or lath in sustaining weight and also act as separators to maintain the proper spacing of the pieces C C'. The edges of the metal lath are preferably turned up to rest upon the flanges of the cross-pieces, so that the under side of the lath will be on a level with the bottom of the said cross-pieces, and thus provide a level under surface upon which the plaster for the ceiling may be spread.

In order to secure the cross-pieces and sheets together and prevent displacement, I provide bars D, which extend from one strip to another over the upper surface of the sheets and have their ends *d* turned or hooked over the vertical flanges of the pieces.

Upon the ceiling construction is spread a layer of concrete or other filling G, while the spaces between the floor-supporting construction and the floor H are filled with a like substance.

What I claim is—

1. The combination of I-beams, suspenders secured thereto and extending below the lower flanges thereof, cross-pieces supported by the said suspenders below the said beams and extending from one beam to a point beyond the next, sheet metal supported by said cross-pieces by resting thereon, and also passing underneath the beams.

2. The combination of I-beams, suspenders secured thereto and extending below the lower flanges thereof, cross-pieces supported by said suspenders below the said lower flanges of the beams and sheet-metal lath supported by the said cross-pieces by having its

edges resting thereon, the said edges being turned up to an extent corresponding with the thickness of the cross-pieces.

3. The combination with the I-beams, of cross-pieces composed of T-iron connected to said beams, sheet metal resting upon the lower flanges of said T-iron, folded portions running at right angles to said T-irons, consisting of a double thickness or fold of said sheet metal raised at right angles to the surface thereof.

4. The combination with the I-beams, of cross-pieces composed of T-iron connected to said beams, sheet metal resting upon the lower flanges of said T-iron, folded portions running at right angles to said T-irons, consisting of a double thickness or fold of said sheet metal raised at right angles to the surface thereof and metallic core interposed between the thicknesses of said folded portions.

5. The combination with the I-beams, of cross-pieces composed of T-iron, sheet metal between said cross-pieces and separating-bars secured at their ends to the vertical flanges of said cross-pieces and extending over the surface of said sheet metal.

6. The combination of I-beams, cross-pieces of greater length than the distance from one I-beam to another supported by the same,

flanges on said cross-pieces, sheets of metal lath resting upon said flanges and of width equal to the space between the said cross-pieces.

7. The combination of I-beams, cross-pieces supported by and extending beneath the same, flanges on said cross-pieces, sheets of metal lath resting upon said flanges of width equal to the space between the said cross-pieces, and separating-bars extending over the upper surface of said lath and having their ends turned or hooked over portions of the cross-pieces.

8. The combination of I-beams, suspenders secured thereto and extending below the lower flanges thereof, cross-pieces composed of T-iron supported by the said suspenders by having the lower ends of the same passed through their vertical flanges and sheets of metal supported by having their edges resting upon the horizontal flanges of said cross-pieces.

Witness my hand, this 31st day of January, 1902, at the city of New York, county and State of New York.

JACOB SCHRATWIESER.

Witnesses:

WILLIAM R. BAIRD,
STEPHEN S. NEWTON.