

T. O'SHEA.
BUILDING CONSTRUCTION.
APPLICATION FILED JULY 7, 1904.

2 SHEETS—SHEET 1.

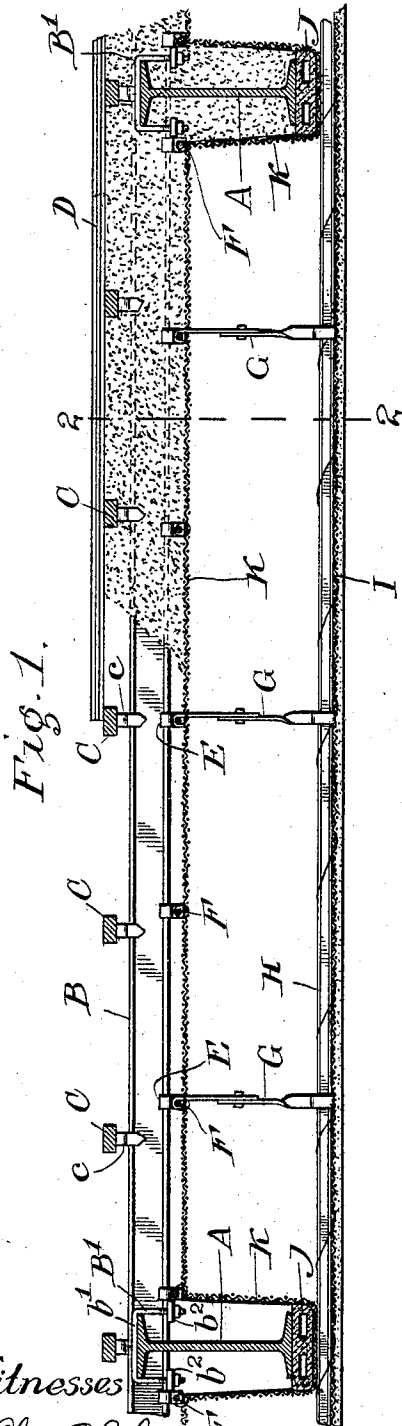


Fig. 1.

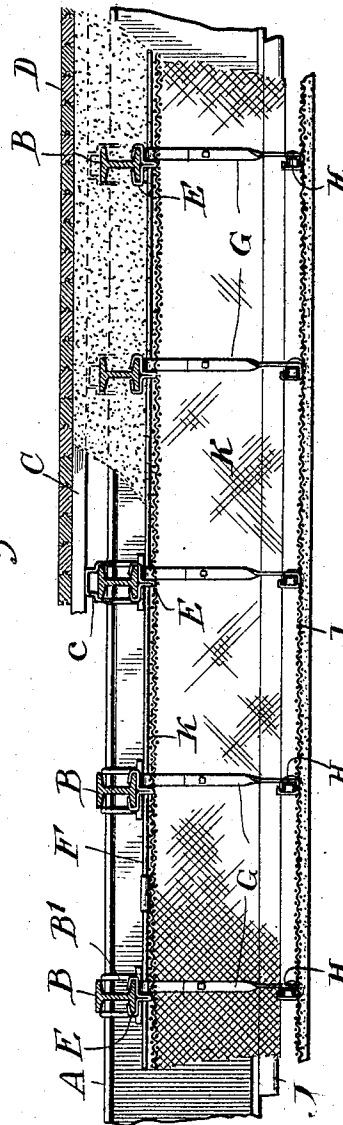


Fig. 2.

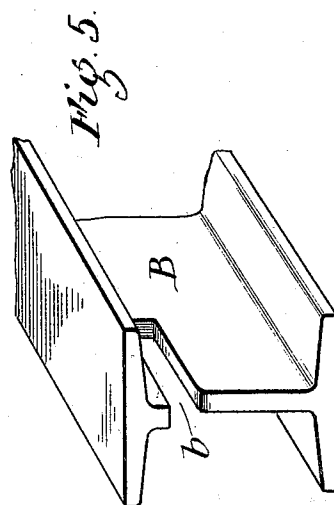
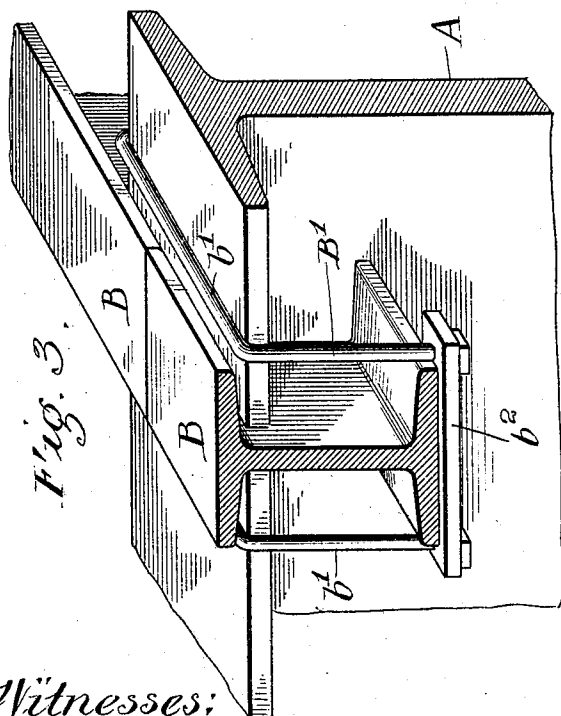
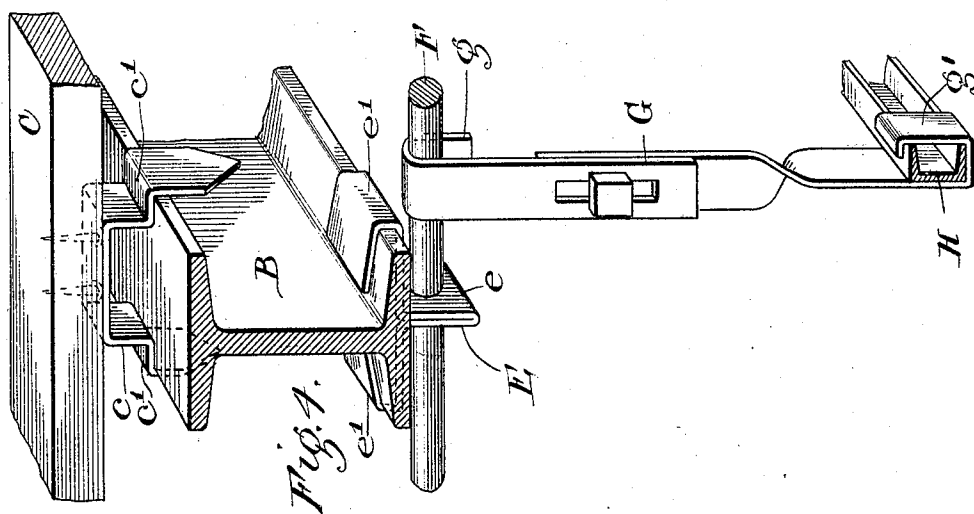
Witnesses

Chas O. Hurvey,
Kathleen Cornwall,

Inventor:
Timothy O'Shea.
by H. Butler.
Atty.

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2 SHEETS—SHEET 2.



Witnesses:
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Kathleen Connell.

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Timothy O'Shea
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UNITED STATES PATENT OFFICE.

TIMOTHY O'SHEA, OF CHICAGO, ILLINOIS.

BUILDING CONSTRUCTION.

SPECIFICATION forming part of Letter Patent No. 794,246, dated July 11, 1905.

Application filed July 7, 1904. Serial No. 215,586.

To all whom it may concern:

Be it known that I, TIMOTHY O'SHEA, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Building Constructions, of which the following is a specification.

My invention relates to certain new and useful improvements in building construction; and its object is to produce a structure of this class which shall have certain advantages, which will appear more fully and at large in the course of this specification.

To this end my invention consists in certain novel features of construction, which are clearly illustrated in the accompanying drawings and described in this specification.

In the aforesaid drawings, Figure 1 is a vertical section through a structure embodying my invention. Fig. 2 is a transverse section taken in the line 2 2 of Fig. 1. Fig. 3 is a fragmental perspective view of certain of the floor-supporting members. Fig. 4 is a similar view of one of the floor-supporting I-beams, showing the means for supporting flooring and ceiling; and Fig. 5 is a similar view of one of the floor-supporting I-beams.

Referring to the drawings, A A are two beams, here shown as I-beams, extending transversely through a building in the ordinary way and forming the main supporting members for the floor of the building. These I-beams are preferably placed about eight feet apart and are connected by transversely-extending I-beams B, the ends of which are notched, as shown at *b* in Fig. 5, to embrace the upper flange of the beams A, the adjacent ends of the I-beams B meeting each other above the flange of the beam A. Vertically-adjustable stirrups B' (see Fig. 3) are provided to assist in supporting the I-beams B, and these stirrups are preferably constructed of yoke-shaped rods *b'*, arranged in pairs, one on either side of the I-beams B, their lower ends being connected by bars *b*². Nuts are threaded upon the ends of the rods *b'*, which may be screwed up to raise the bars *b*², so that the I-beams will have an equal bearing

upon the upper face of the beams A and upon the bars *b*².

The flooring-strips C are supported above the I-beams B by means of clips *c*, (see Fig. 4,) which may be nailed to the flooring-strips C. These clips are bent to form shoulders *c'*, adapted to rest upon the I-beams, and their ends are bent down, so as to project below the flange thereof. The floor D is laid upon the floor-strips C in the ordinary manner.

Upon the lower flange of the I-beams B are secured clips E, (see Fig. 4,) preferably formed of sheet metal and bent to form a web portion *e* and two diverging portions *e'*, the ends of which are bent over the lower flange of the I-beam, as shown in Fig. 4. The web portions *e* are perforated, and through these extend rods F, over which are hooked the ceiling-supporting hangers G. These hangers are preferably formed of two pieces bolted or otherwise secured together, one of said pieces being slotted in order that the ceiling proper may be leveled up, and the upper end of the hangers are formed with hook portions *g* for engagement with the rods F. The lower portions are bent upward, as shown at *g'*, and support light channel-bars H, and to these channel-bars is wired metal lathing I, which may be plastered in the usual manner.

Immediately below the main supporting-beams A are blocks J, formed of fireproof material and supported by wire lathing K, which is wired to the rods F to form a false ceiling, the object of which will appear later. This false ceiling is carried down from the rods F adjacent to the beams A and passes underneath the blocks J, as indicated in Fig. 1.

In constructing the flooring the I-beams B are secured in place upon the main beams A, after which the clips E are hung upon the I-beams B and the rods F threaded through the clips. The false ceiling K is then wired in place and the ceiling-hangers hung upon the rods F, after which concrete or other fireproof material is laid upon the false ceiling K and in the space between the webs of the beams A and the vertically-extending portions of the false ceiling. This concrete or other fireproof material is first filled in level

with the I-beams B, after which the gas or other service pipes may be laid in place. The clips *c* are nailed to the flooring-strips C and the latter are placed upon the I-beams, the ends of the clips sinking into the concrete, and then concrete is filled in level with the upper surface of the flooring-strips, after which the floor is laid in the ordinary manner. It will thus be seen that all the floor-supporting members are entirely surrounded by a filling of fireproof material, thereby making an absolutely fireproof structure. If desired, the suspended ceiling may be dispensed with and the false ceiling plastered in the ordinary manner; but by making the ceiling suspended in this way an air-space is left between the floor and the ceiling, which greatly adds to the fireproofing of the structure.

I realize that considerable variation is possible in the details of this construction without departing from the spirit of the invention, and I therefore do not intend to limit myself to the specific form herein shown and described.

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

1. In a building construction the combination with a pair of flanged supporting-beams, of floor-beams notched at their ends to embrace the flange of the main beams and stirrups hung upon said main beams and adapted to assist in supporting the floor-beams, comprising substantially two members vertically adjustable with respect to each other, one of which is supported by the main beam and the other of which supports the floor-beam.

2. In a building construction the combination with a pair of flanged supporting-beams, of floor-supporting beams notched at their ends to embrace the flange of the main beams and stirrups hung upon said main beams and adapted to support the floor-beams comprising substantially yoke-shaped members resting upon the main beams, bars connecting their lower ends and means for adjusting the

vertical height of these bars upon the yoke-shaped members.

3. In a building construction the combination with main supporting-beams and floor-beams supported thereon, of flooring-strips, clips supporting said flooring-strips, said clips being formed with shoulders adapted to rest upon the floor-beams, portions projecting above said shoulders to support the flooring-strips, and tongues projecting down below the upper edge of the floor-beams.

4. In a building construction the combination with main supporting-beams and floor-beams supported thereby, of perforated clips hung upon the floor-beams, rods passing through said perforations and supported by said clips, metal lathing hung upon said rods and extending below the lower edges of the main supporting-beams, fireproof material supported by said metal ceiling and surrounding the main supporting-beams and the floor-beams, hangers supported upon said rods, bars hung upon said hangers and metal lathing secured to said bars.

5. In a building construction, the combination with main supporting-beams and floor-beams carried thereby, of clips resting upon said floor-beams, flooring-strips supported by said clips, a floor upon said flooring-strips, ceiling-supporting clips hung upon said floor-beams, metallic lathing supported by the latter clips and extending beneath the main beams, fireproofing material interposed between said lathing and said main beams, and fireproof material surrounding the main beams and floor-beams between the lathing and the flooring.

In witness whereof I have signed the above application for Letters Patent, at Chicago, in the county of Cook and State of Illinois, this 2d day of July, A. D. 1904.

TIMOTHY O'SHEA.

Witnesses:

CHAS. O. SHERVEY,
KATHLEEN CORNWALL.