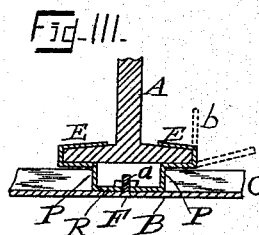
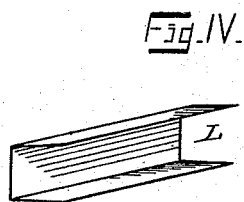
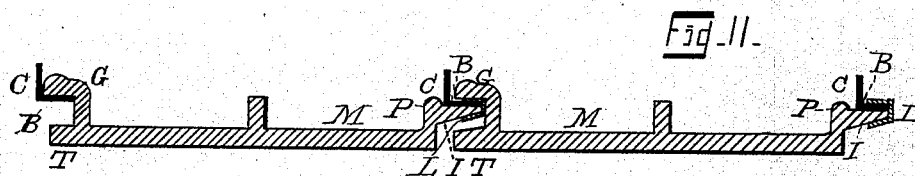
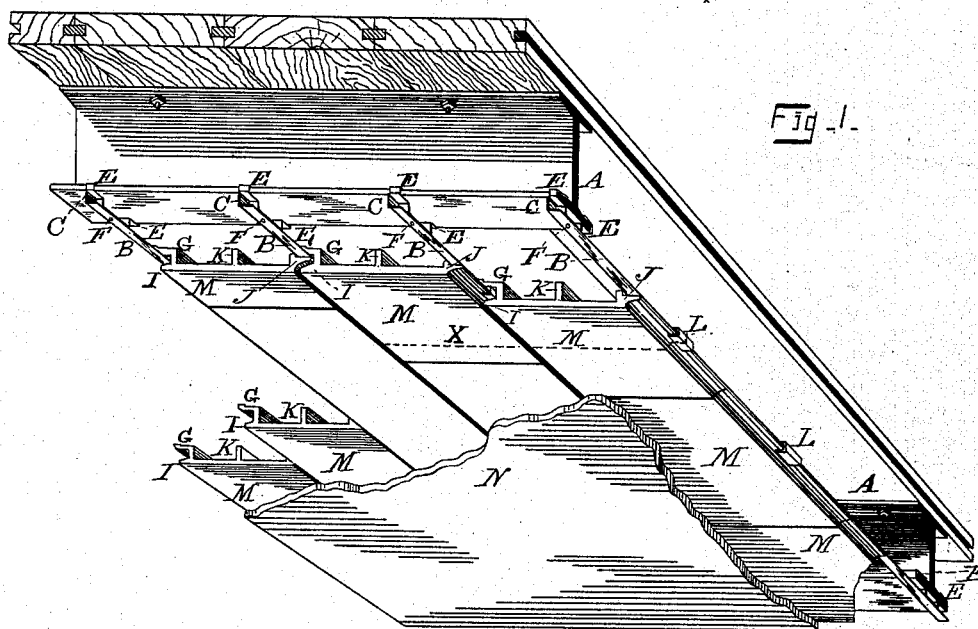


(No Model.)

P. B. WIGHT.
FIRE PROOF CEILING.

No. 384,947.

Patented June 19, 1888.



WITNESSES:

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FIRE-PROOF CEILING.

SPECIFICATION forming part of Letters Patent No. 384,947, dated June 19, 1888.

Application filed November 5, 1887. Serial No. 254,333. (No model.)

To all whom it may concern:

Be it known that I, PETER B. WIGHT, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Fire-Proof Ceilings, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

- Figure I is a perspective representation of the I-beams of a building to which my improved fire-proof ceiling is attached; Fig. II, a vertical section of the ceiling, taken through the dotted line X, Fig. I. Fig. III is a cross-section of one I-beam, a broken longitudinal elevation of one of my L-beams, and a vertical central section of the L-beam hanger; Fig. IV, an isometrical perspective view of one of the metal clamps which is employed to support one edge of ceiling plates or tiles to the L-beam.

The purpose of this invention is to make a strong level fire-proof ceiling, and to accomplish this the most economically I at the same time construct the parts so that they may be speedily, accurately, and securely attached to the I beams or joists. The means employed to attain these are as follows:

- A A represent the iron I-beams to a ceiling. C B represent the L-beams which I employ to support the ceiling-tiles. These are preferably made of wrought-iron, and being in the form shown, they may be quite light, so as not materially to increase the weight suspended from the I-beams. The hangers for connecting the beams consist each of thin strips of band or strap iron, which is bent so as to have a level part, R, two vertical parts, P, and two parts, E, which respectively engage the under portions, edge portions, and top portions of the lower flanges of the I-beam A, as more clearly shown at Fig. 3. Holes are formed in the level parts R and in the L-beams B C, that screws F may be put through them and secured by nuts a.

In applying hangers to the I beams one end of the ends which engages the flange of the I-beam is left to project out laterally far enough for the other end to be placed on the opposite flange, as shown at b, and then it is

turned over onto the flange, as shown at Fig. 3, to form a firm connection, the iron being soft enough to permit it to be bent cold. The L-beams, as shown, are placed transversely to the I-beams in single lengths or in spliced lengths extending across the ceiling, and are placed such a distance apart as to fit the lengths of the ceiling-tiles. The level portions of these tiles are shown at M. On each tile is formed an elevated part, G, which is supported by the part B of the L-beam, and between the part G and one end, T, of the level part is formed a groove, which permits an elevated projection, I, on the other end of the tile to pass under the part B of the L-beam and be held to it by a clamp, L, which consists of a thin piece of iron bent to fit the top of the part B and the inclined under side of the projection I when in position, the clamp being placed on the parts with a little force, so as to spring the metal to fit, as shown.

In the construction of supported ceilings under floors composed of either wooden or iron beams it has been the custom to use various sections of rolled iron attached to the beams in different positions. Angle-irons, when there used, have been generally set with the lower bar of the L against the supporting-beams. I am not aware that angle-beams or L-beams have ever before been used as set with the top end of the top bar of the L against the beams as I set them. This construction I consider very important, for it is necessary to have a horizontal support for the tiles, and it is not necessary to have a horizontal bearing against the beams.

The ceiling-tiles are to be set as follows: Commencing at the left-hand L-beam, C B, the upper portion, G, of the tile is placed on the horizontal part B, and the other end is brought up to the part B of the next L-beam to the right and secured there by the spring-clamp L, the projection P on the tile preventing the tile from moving edgewise. The laying of the tiles is to be continued till the ceiling is covered, using the clamps L, as described, and then the under side of the ceiling is to be covered with plaster, care being taken to fill the butt-joints with the first coat of mortar. At Fig. 2 the space between the end T of the tile

and the spring-clamp L is enlarged to show more clearly the construction; but in practice the jaws G T fit the spring-clamp L quite closely. By this means each tile is held independent and the whole ceiling is held firmly in place.

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

1. The L-beams C B, in combination with the tiles M, provided with elevated projecting ends, and the metal clamps L, applied as specified.
2. The hangers consisting of the level parts R, vertical parts P, and the overlapping parts

E E, in combination with the L-beams B C, I-beams A, and fastenings F a, as specified.

3. The ceiling-tile M, provided with the elevated part G, supported on the L-beam B C, and the groove between it and the end T, the elevated projecting part I, lying on the under side of the L-beam, in combination with the I-beams A, L-beams B C, the hangers R P E, and fastenings F a, as specified.

PETER B. WIGHT.

Witnesses:

G. L. CHAPIN,
I. T. DYER.