No. 710,679. Patented Oct. 7, 1902.

W. F. GILES.

BUILDING CONSTRUCTION.

(Application filed Feb. 15, 1902.)

(No Model.)

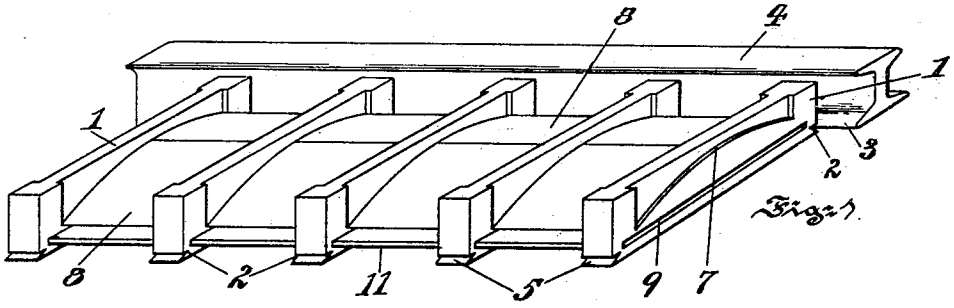


Fig. 1.

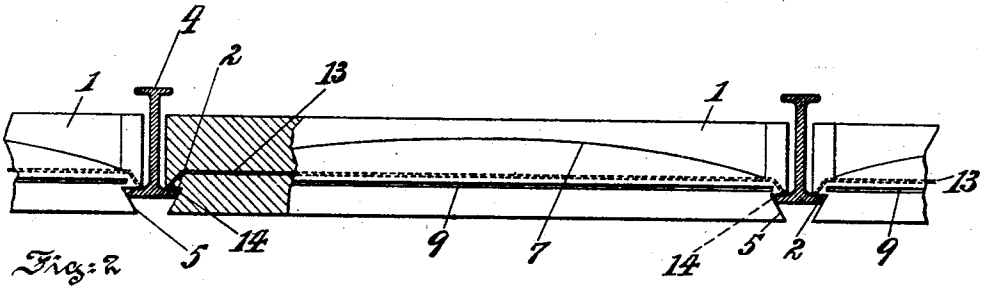


Fig. 2.

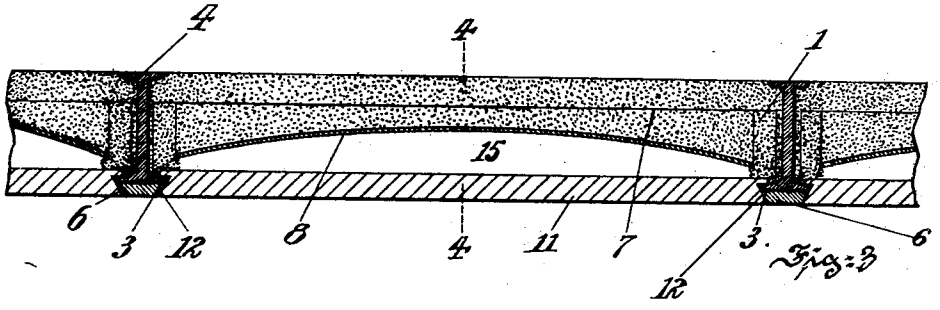
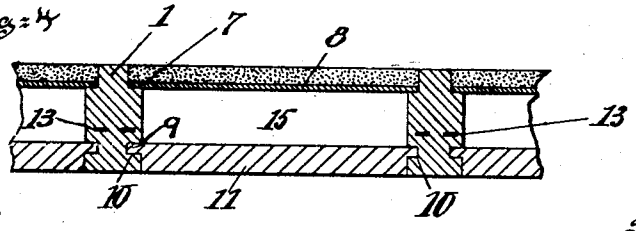


Fig. 3.

Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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BUILDING CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 710,679, dated October 7, 1902.

Application filed February 15, 1902. Serial No. 94,181. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. GILES, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Building Constructions, of which the following is a specification.

One object of the present invention is to provide a light and strong fireproof building construction of which the parts may be rapidly and cheaply assembled.

To these and other ends hereinafter explained the invention comprises the improvements to be presently described, and particularly referred to in the claims.

The nature, characteristic features, and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a perspective view illustrating a building construction embodying features of my invention with the concrete or other floor and certain parts of the ceiling-covering removed. Fig. 2 is a sectional view of the same, taken transversely of the beams and showing part of one of the lintels broken away. Fig. 3 is a sectional view taken between the lintels and showing an air-space between the ceiling-block and the arch and also the ceiling-wedges, and Fig. 4 is a sectional view taken on the line 4 4 of Fig. 3.

In the drawings, 1 is a lintel having at its ends seats 2, adapted to the lower flanges 3 and webs of I-beams 4, and also having downwardly-extending inclined faces 5, which engage ceiling-wedges 6, that cover the lower faces of the flanges of the I-beams. On their faces these lintels are provided with upright and curved lips or projections 7, forming imposts or supports for arch-blocks or voussoirs 8. Below these lips there is a lengthwise-extending groove 9, adapted to receive a tongue 10 on the ceiling-block 11. The edges 12 of the ceiling-blocks are beveled for engagement with the correspondingly-beveled edges of the ceiling-wedges 6. Embedded in the lintels are reinforcements consisting of straight rods 13, bent downward at their ends to form feet 14, which extend through the seats 2 and rest upon the lower flanges of the I-beams. 15 represents air-spaces. The tops of the arches and of the lintels and of the I-beams may be used to support a concrete or other suitable filling on which the floor may be supported, and the lintels, arch-blocks, and ceiling-blocks may be molded from any of the light plastics which are to be found upon the market and which consist of plaster-of-paris and other fireproof materials. It will be apparent that the arches spring transversely of the I-beams, that the structure may be easily and rapidly assembled, and that it possesses great mechanical strength and is well adapted to transfer the load upon it to the I-beams. Moreover, it provides an exceedingly good foundation for ceiling effects.

It will be obvious to those skilled in the art to which my invention appertains that modifications may be made in details without departing from the spirit thereof. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove set forth, and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a building construction a lintel having at its ends seats and inclined faces extending below the seats and having on its sides a curved lip and upright lips extending from the ends of the curved lip, said lips forming an open-topped support or imposts, and also having on its sides lengthwise-extending grooves arranged below the imposts, substantially as described.

2. In a building construction lintels having at the lower corners of their ends seats and having embedded in them reinforcements consisting of straight rods bent at their ends to form feet which extend through said seats, substantially as described.

3. In a building construction the combination of I-beams, arch-blocks, ceiling-blocks with tongued edges, ceiling-wedges with beveled edges, and lintels each having at its end seats for the I-beams and inclined downwardly-extending faces for the ceiling-wedges and having on its sides lips forming imposts for the arch-blocks and grooves for the tongued edges of the ceiling-blocks, substantially as described.

4. In a building construction the combina-

tion of I-beams, arch-blocks, ceiling-blocks with tongued edges, ceiling-wedges with beveled edges, lintels each having at its ends seats for the I-beams and inclined downwardly-extending faces for the ceiling-wedges and having on its sides lips forming imposts for the arch-blocks and grooves for the tongued edges of the ceiling-blocks, and reinforcements consisting of rods embedded in the lintels and equipped at their ends with feet which extend through the seats and rest on the I-beams, substantially as described.

5. In a building construction, the combination of I-beams, arch-blocks, ceiling-blocks with tongued edges, ceiling-wedges with beveled edges, lintels each having at its ends seats for the I-beams and inclined downwardly-extending faces for the ceiling-wedges and having on its sides lips forming imposts for the arch-blocks and grooves for the tongued edges of the ceiling-blocks, and a filling of concrete superposed on the arches and lintels and constituting a floor foundation, substantially as described.

In testimony whereof I have hereunto signed my name.

WILLIAM F. GILES.

In presence of—
W. J. JACKSON,
K. M. GILLIGAN.