

No. 647,837.

Patented Apr. 17, 1900.

M. H. JESTER.  
BUILDING CONSTRUCTION.

(Application filed Aug. 15, 1899.)

(No Model.)

Fig. 1.

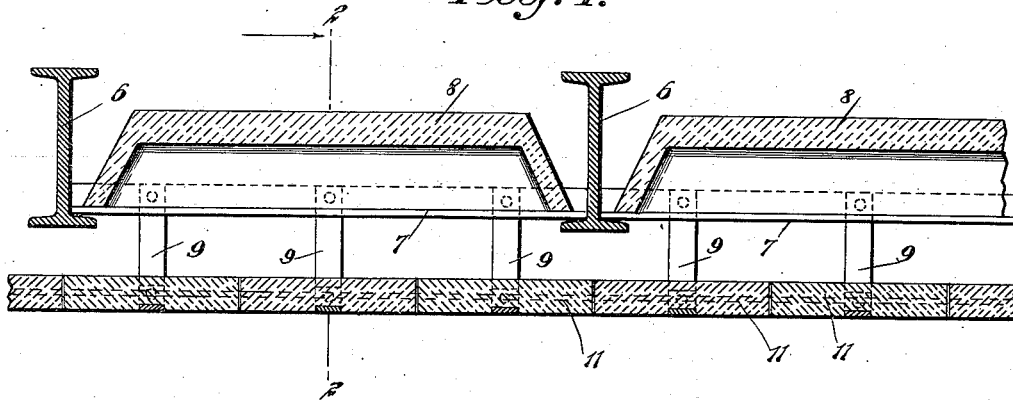


Fig. 2.

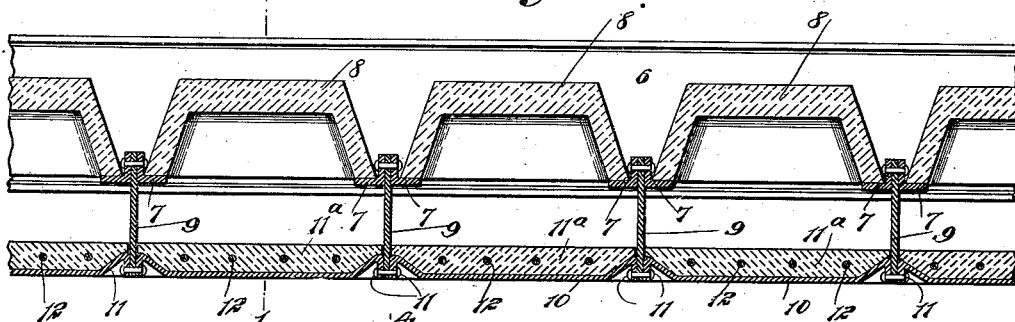


Fig. 3.

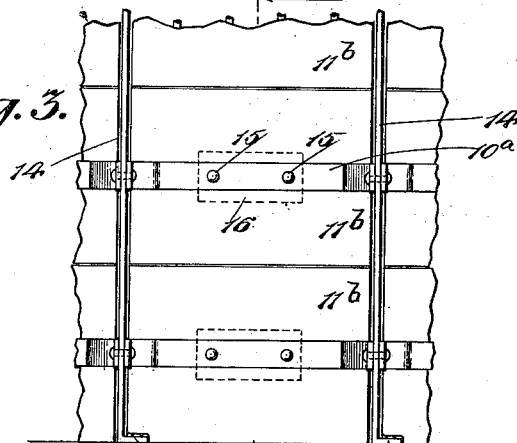
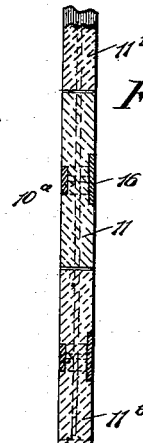


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## BUILDING CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 647,837, dated April 17, 1900.

Application filed August 15, 1899. Serial No. 727,312. (No model.)

*To all whom it may concern:*

Be it known that I, MARVIN H. JESTER, of the city of New York, borough of Manhattan, in the county and State of New York, have  
5 invented new and useful Improvements in Building Construction, of which the following is a full, clear, and exact description.

The invention relates to a system of constructing fireproof buildings, the system embodying improved means of forming the floors and ceilings, such means being also adaptable to the construction of the walls or partitions of the building.

This specification is the disclosure of one  
15 form of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional view of the invention on the line 1 1 of Fig. 2. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a fragmentary front view of the system adapted to  
25 a wall or partition, and Fig. 4 is a sectional view on the line 4 4 of Fig. 3.

As shown in Figs. 1 and 2, the main beams 6 of the structure are in the form of I-beams and support angle-iron cross-ties 7, on which  
30 are rested the floor-sections 8, such sections being constructed of concrete and preferably in the form shown. The spaces above the floor-sections to the level of the I-beams 6 are filled in with concrete or other suitable material.

The angle-iron cross-ties 7 are arranged in pairs and arranged back to back, as shown best in Fig. 2, and the members of these pairs of angle-iron cross-ties have hangers 9 arranged between them and secured by bolts or rivets, as shown. These hangers 9 support the ceiling-straps 10, the ceiling-straps having their ends bent to form feet 11, to which the lower ends of the hangers 9 are bolted or  
45 riveted. These ceiling-straps 10 support the ceiling-blocks 11<sup>a</sup>, the blocks being formed with grooves and recesses therein to receive the ceiling-straps, causing them to lie flush with the lower surfaces of the block. Tie-rods 12 are arranged in the ceiling-blocks 11<sup>a</sup>  
50 and serve to strengthen the same. These rods may or may not extend from block to

block, according to the desire of the constructor. The construction thus constituted provides a rigid and secure floor from which  
55 a ceiling is supported, and since all of the materials are of a non-combustible nature it will be seen that the construction will be entirely fireproof.

In adapting my invention to a wall or partition structure, as shown in Figs. 3 and 4, the partition-blocks 11<sup>b</sup> are superimposed on each other, as shown, and between each vertical row of blocks is arranged a stringer 14. These stringers have partition-straps 10<sup>a</sup> (constructed the same as the straps 10) attached  
65 thereto, the straps 10<sup>a</sup> being embedded in the partition-blocks 11<sup>b</sup> and being fastened thereto by means of rivets 15, extending through the partition-blocks and attached to backing-plates 16, as shown in the drawings. The  
70 stringers 14 are fastened to the floor and ceiling in any desired manner—for example, by means of a cleat 14<sup>a</sup> and rivets. (Shown in Figs. 3 and 4.) A partition-strap 10<sup>a</sup> is provided  
75 for each partition-block 11<sup>b</sup>; also, a backing-plate 16 is provided for each partition-block, the backing-plates being respectively fastened to the partition-straps, these partition-straps being in turn fastened to the stringers  
80 14 and the stringers 14 being held rigidly to the floor and ceiling of the building. It will be seen that the partition itself is thus securely mounted.

Having thus described my invention, I  
85 claim as new and desire to secure by Letters Patent—

1. In a building construction, the combination with the flanged main beams, of cross-ties resting on the lower flanges thereof and  
90 extending from one beam to the next, hangers secured to and depending from said cross-ties, and straps secured to the lower ends of the hangers, each of said straps extending across from one hanger to the next, as and  
95 for the purpose set forth.

2. In a building construction, the combination with the flanged main beams, of cross-ties angular in cross-section and supported at their ends on the lower flanges of adjacent  
100 beams, the said ties being arranged in pairs with their vertical members close to each other, a hanger secured between the vertical members of each pair and depending there-

from, and straps secured to the lower ends of the hangers and extending from one hanger to the next, as and for the purpose set forth.

3. In a building construction, the combination with the main beams, of angle-iron cross-ties supported thereon, floor-sections supported on the cross-ties, hangers secured to the ties and depending therefrom, ceiling-straps having laterally-bent end portions attached to the hangers, and ceiling-blocks mounted and sustained by the straps.

4. In a building construction, the combination with the main beams, of angle-iron cross-ties held by the beams and arranged in pairs, floor-sections supported on the angle-iron cross-ties, hangers fitted between the mem-

bers of the pairs of cross-ties and secured thereto, ceiling-straps having laterally-bent end portions secured to the hangers, and ceiling-blocks supported by the straps.

5. In a building construction, main beams, angular cross-ties supported in pairs between adjacent beams, hangers secured between and depending from the ties of each pair, straps secured to the lower ends of adjacent hangers, floor-sections supported on the cross-ties, and ceiling-blocks supported on the straps.

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