

No. 765,009.

PATENTED JULY 12, 1904.

J. B. HINCHMAN.  
FIREPROOF CONSTRUCTION.  
APPLICATION FILED FEB. 15, 1904.

NO MODEL.

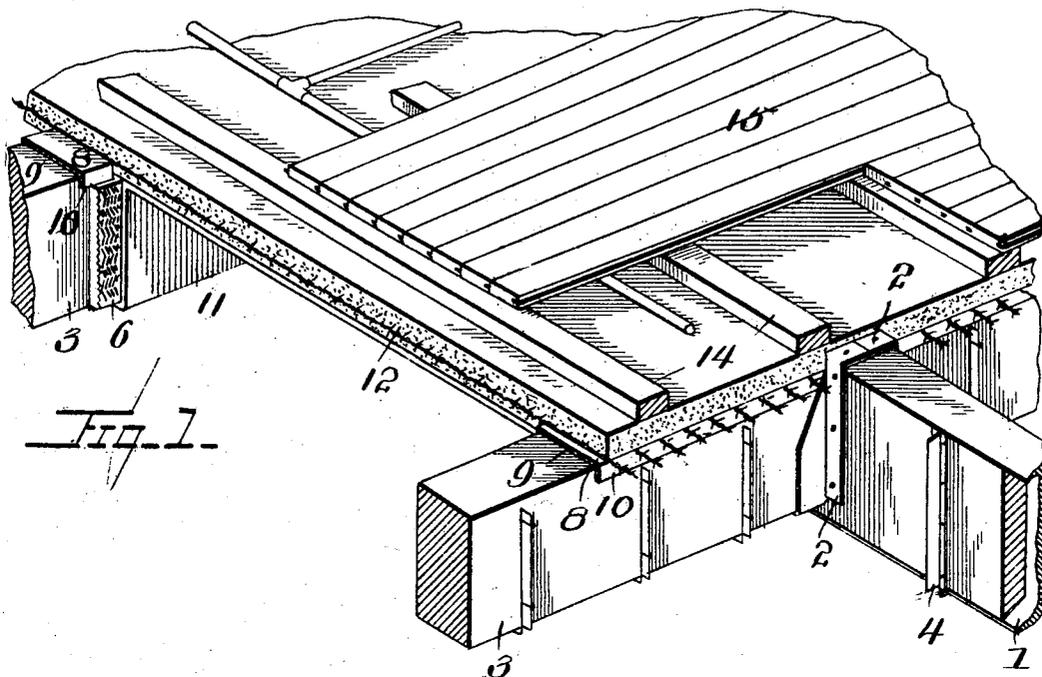
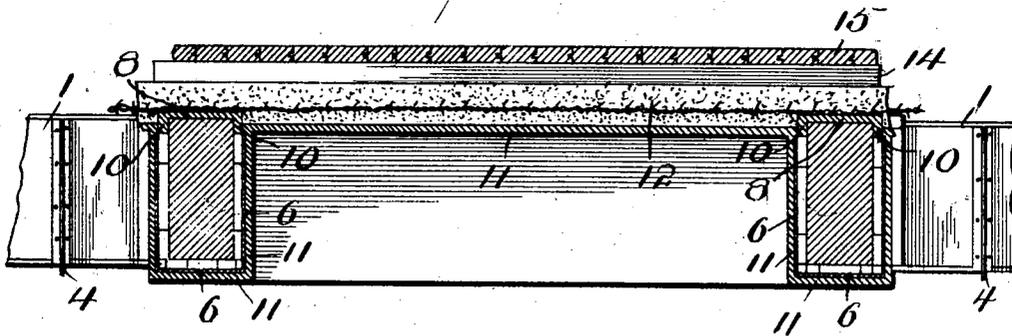


Fig. 1



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES B. HINCHMAN, OF DENVER, COLORADO.

## FIREPROOF CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 765,009, dated July 12, 1904.

Application filed February 15, 1904. Serial No. 193,618. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES B. HINCHMAN, a citizen of the United States of America, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Fireproof Construction, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to fireproof construction, and more in particular to an improved means of supplying concrete to wooden supporting structures.

The invention purposes the equipment of wooden construction with protective devices enabling the formation of concrete or other plastic composition floor and roof construction.

Buildings of a strictly fireproof nature owing to the excessive presence of steel and iron unless well protected will when subjected to a temperature of 300° warp and twist, pulling down the building. Heavy timbers protected by a coating of hardened plastic composition have been found by experience to withstand such temperature.

The invention therefore contemplates a means of protecting the timbers from moisture and to provide for the contraction and expansion of the concrete due to varying climatic conditions.

In the drawings, Figure 1 is a perspective of a section of flooring, and Fig. 2 is a longitudinal sectional view thereof.

1 designates the I beams or girders formed of steel, which support steel hangers 2, the latter extending on either side of the girders and abutting the wood beams 3, the latter extending onto the bases of the girders by which they are supported. Planking of a width equal to one side of the girder-bases are supported on the latter and abut the web and under side of the girder-heads. Secured to the planking is the iron furring 4, to which the metal lath is secured. Likewise the wood beams 3 are provided with furring to secure the metal lath. The metal lath is designated at 6, and the plaster is secured thereto in the usual manner.

In order to, as above stated, protect the tim-

bers against moisture as well as to enable the same to more readily withstand the static pressure of the plastic composition which they bear, I provide the same with metallic caps, (shown at 8,) formed of strips of metal having a central portion 9, both side edges of which are bent downwardly at right angles to form flanges 10, which snugly embrace the sides of the timbers. The width of this central portion is approximately equal to the thickness of the wooden beams or timbers, and the same may be forced into frictional contact with the timbers, though not necessarily so. By forming the caps of a pliable material it is possible to position the same on the timbers with great expediency, and the caps may thus be made to compensate for any discrepancy in the widths of the timbers, which, however slight, might otherwise prevent absolute perfect securement of the caps. The side flanges of the caps which embrace corresponding parts of the beams preferably extend downwardly from the tops of the latter for a short space to enable the concrete 12 to engage the cap sides, and thereby prevent engagement of the plastic composition with the wooden beams. Preferably, though not essentially so, the cap sides extend downwardly, or the metal lathing extends upwardly to make a joint between the two, which enables an uninterrupted and smooth foundation to be formed to receive the plastering shown at 11. Suitable nailing-strips 14 are shown on the concrete, to which the flooring 15 is nailed.

It will be understood that the caps are first placed in position, after which the usual centering is properly positioned, at which time the plastic composition in a semifluid state is applied, the centering after the composition has hardened being removed. Owing to the concrete extending down to engage the side portions or flanges 10 of the caps, the latter are perfectly secured in their positions and ably protect the wooden beams or timbers.

In the above I have set forth the preferred material of the protective caps; but I wish to have it understood that tin plates or tarpaper or any kind of paper may be substituted, the latter when used being of a number of plies. In every instance the cap on the beam

acts as a separator, making a clean joint between the wooden beam and the concrete slab. Furthermore, the concrete or plastic composition being in direct contact with the projecting-cap and out of contact with the wooden beams should the latter shrink due to the varying climatic conditions the plastic material will not be subject to cracking due to this shrinkage of the wooden beams.

10 Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In fireproof construction, the combination of a wooden beam, furring secured to the sides and bottom of the beam and metallic lathing attached to the furring and extending across the bottom and up the sides of the beam to near the top thereof, with a metallic cap resting on the top of the beam and having depending flanges embracing the sides of the beam and meeting the upper edges of the lathing, concrete applied on top of said cap and extending downwardly part way of the

sides of the flanges and plaster applied to the lathing and to the said concrete. 25

2. In fireproof construction the combination of a beam, furring secured on the beam, metallic lathing attached to said furring and extending on the sides of the beam and the top thereof, with a cap applied to the top of the beam and having depending flanges extending down the sides of the beam to the upper edges of the lathing. 30

3. The combination with the wooden beams, of metal lathing secured to the bottom and sides thereof and extending to a point below the top thereof, and a cap seating on the top and having its sides extending downwardly to meet the upper edge of said lathing. 35

In testimony whereof I affix my signature in the presence of two witnesses. 40

JAMES B. HINCHMAN.

Witnesses:

EDWIN W. HINCHMAN,  
CALVIN BOYER.