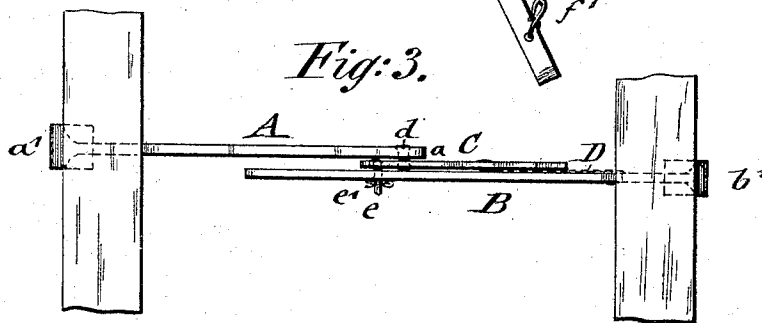
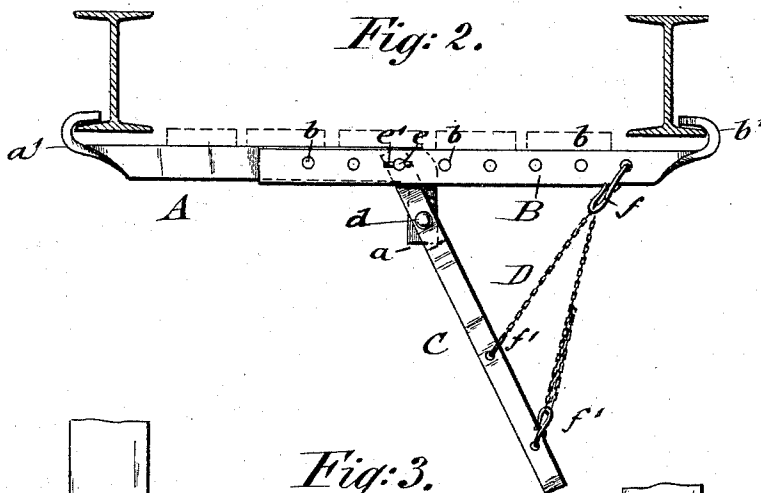
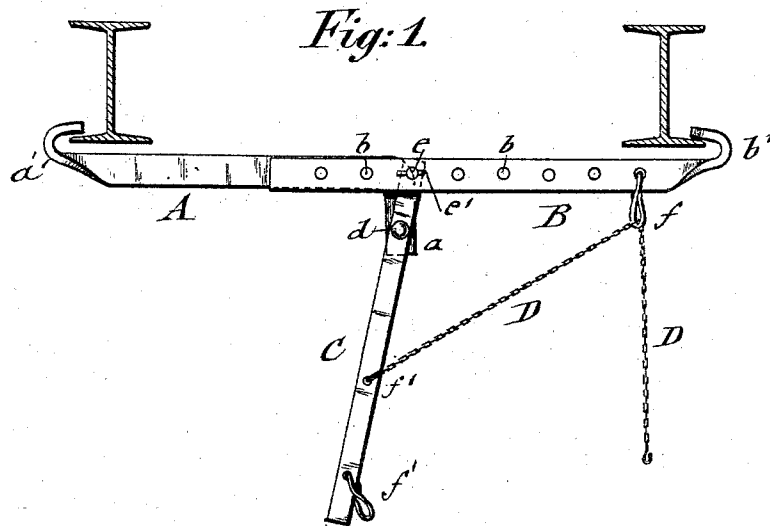


(No Model.)

H. GRAHAM.  
HANGER FOR LAYING FIREPROOF FLOORS.

No. 495,672.

Patented Apr. 18, 1893.



WITNESSES:

WITNESSES:  
H. Bellard Griffiths.  
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BY  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

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SAME PLACE.

## HANGER FOR LAYING FIREPROOF FLOORS.

SPECIFICATION forming part of Letters Patent No. 495,672, dated April 18, 1893.

Application filed January 21, 1893. Serial No. 459,260. (No model.)

### *To all whom it may concern:*

Be it known that I, HARRY GRAHAM, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Hangers for Laying Fireproof Floors, of which the following is a specification.

This invention relates to an improved hanger for laying fire-proof floors, by which the expensive and time-consuming suspension of the hangers which were used heretofore in laying fire-proof floors between iron beams are dispensed with, and a strong, reliable, and quickly-operated support for the planking on which the floor rests is obtained; and the invention consists of a hanger for fire-proof floors, which consists of two main-pieces, one piece being provided with a downwardly bent inner end and the other with holes, both main pieces being provided with upwardly-bent hooks at their outer ends, and of a lever-handle that is fulcrumed to the downwardly-bent end of one main-piece, so that the main-pieces can be readily applied to or removed from the lower flanges of two adjacent beams in connection with a locking chain between the handle and the perforated main-piece, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of my improved hanger for laying fire-proof floors, shown in the act of being applied to the lower ends of two adjacent I-beams. Fig. 2 is a side elevation of my improved hanger, shown as applied to the beams and locked in position for supporting the planking for the floor. Fig. 3 is a plan-view of Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A and B represent the two main-pieces of my improved hanger for fire-proof floors. The main-piece A is provided with a downwardly-bent inner end *a* and with an upwardly-bent hook *a'*, which is made integral with the main-piece and bent up from the same at right angles thereto. The main-piece B is provided in its body with holes *b* and at the outer end with a hook *b'* that is bent up like the hook *a'*, at right-angles with the plane of the main-piece

B. The hook-shaped ends *a'* and *b'* of the main-pieces A and B are intended to engage the outer flanges of two adjacent I-beams of a building when the hanger is to be applied for use.

Between the main-pieces A and B is arranged a lever-handle C which is fulcrumed at *d* to the bent end *a* of the main-piece A, according to the distance which has to be spanned by the hanger. When the distance between the I-beams is small, the inner end of the lever-handle C is pivoted to one of the holes which are nearer to the outer hook-shaped end of the main-piece B, while when the distance between the I-beams is larger, the inner end of the lever-handle is pivoted to the holes nearer to the inner end of the main-piece B. The pivot-connection between the inner end of the lever-handle C and the perforated main-piece B is made by a pivot-pin, which is provided with a head at one end and a spring-key *e'* that is inserted into a transverse hole at the opposite end of the pivot-pin *e*, as shown clearly in Fig. 3. Any other pivot-connection between the main-piece B and the lever-handle C may be made, as I do not confine myself to the special pivot-connection shown in the drawings.

To the outermost hole *b* of the main-piece B is applied a hook to which a chain D is applied which is attached to rings or hooks *f'* which are applied to two holes in the outer portion of the lever-handle C so that when the main-pieces A and B are locked to the base of the I-beams by the lever-handle as shown in Fig. 2, the chain D serves for retaining the three parts of my improved hanger rigidly in locked position, so that the planks can be readily placed in the hangers between the beams, as shown in dotted lines in Fig. 2, said planks forming thereby the required support for laying the fire-proof floor between the beams.

My improved hanger is used as follows:— The main-piece B is first adjusted to the distance between two adjacent I-beams of the building by adjusting the pivot-connection between the main-piece B and the lever-handle C to the proper hole in the main-piece B. The outer hook-shaped ends of both main-pieces A and B are then applied to the outer

flanges of the bases of the I-beams, as shown in Fig. 1, the main-pieces being located side-wise of each other, and the lever-handle at one side of a perpendicular line drawn through its fulcrum *d*. The lever-handle C is then moved in lateral direction so that the main-pieces A and B are moved in inward direction alongside of each other until their hook-shaped ends are drawn tightly onto the bases of the beams, as shown in Fig. 2. The connecting chain D is then hung into the hook *f* and attached to the hook *f'*, so that the structure composed by the main-pieces A and B, and the chain D forms one rigidly connected whole on which the planks which are arranged longitudinally between the beams, can be securely supported. When the floor between the beams is completed, the hanger is detached from the beams. This is accomplished by disconnecting the locking-chain D from one of the hooks *f'* of the lever D, so that the latter can be swung into downward and lateral direction shown in Fig. 1, by which motion the main-pieces A and B are moved alongside of each other in outward direction until the hook-shaped ends of the main-pieces A and B clear the bases of the beams, so that the hanger can be readily removed from the same, it being then ready for putting up for use for completing the floor in the space between other beams.

By my hanger the expensive and time-consuming erection of the suspended hangers for the planking by means of hanger-bolts and joists which were used heretofore for supporting the planks on which the fire-proof floor was supported when placed between the beams is dispensed with, so that the laying of fire-proof floors can be accomplished by

the contractor or builder much quicker and less expensively than heretofore.

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

1. A hanger for laying fire-proof floors, composed of a main-piece having a downwardly-bent inner end and an upwardly bent hook at its outer end, a second main-piece provided with holes and an upwardly-bent hook at its outer end, a lever-hanger fulcrumed to the bent inner end of one main-piece and pivotally connected to one of the holes of the perforated main-piece and a locking chain for connecting the lever handle with the perforated main-piece, substantially as set forth.

2. A hanger for laying fire-proof floors, which is composed of a main-piece having a downwardly-bent inner end and an upwardly-bent hook at its outer end, a second main-piece having holes in its body and an upwardly-bent hook at its outer end a lever-handle which is fulcrumed to the inner end of one main-piece and pivotally connected to one of the holes of the perforated main-piece, said lever handle being provided at its outer end with holes having rings, and a locking-chain applied to said rings and connected with a hook on the perforated main-piece, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HARRY GRAHAM.

Witnesses:

PAUL GOEPEL,  
H. WILLARD GRIFFITHS.