No. 675,487. Patented June 4, 1901.

# G. H. KUNNEKE.

## FIREPROOF CONSTRUCTION AND HANGER THEREFOR.

(Application filed Feb. 21, 1900.)

(No Model.)

Fig. 1.

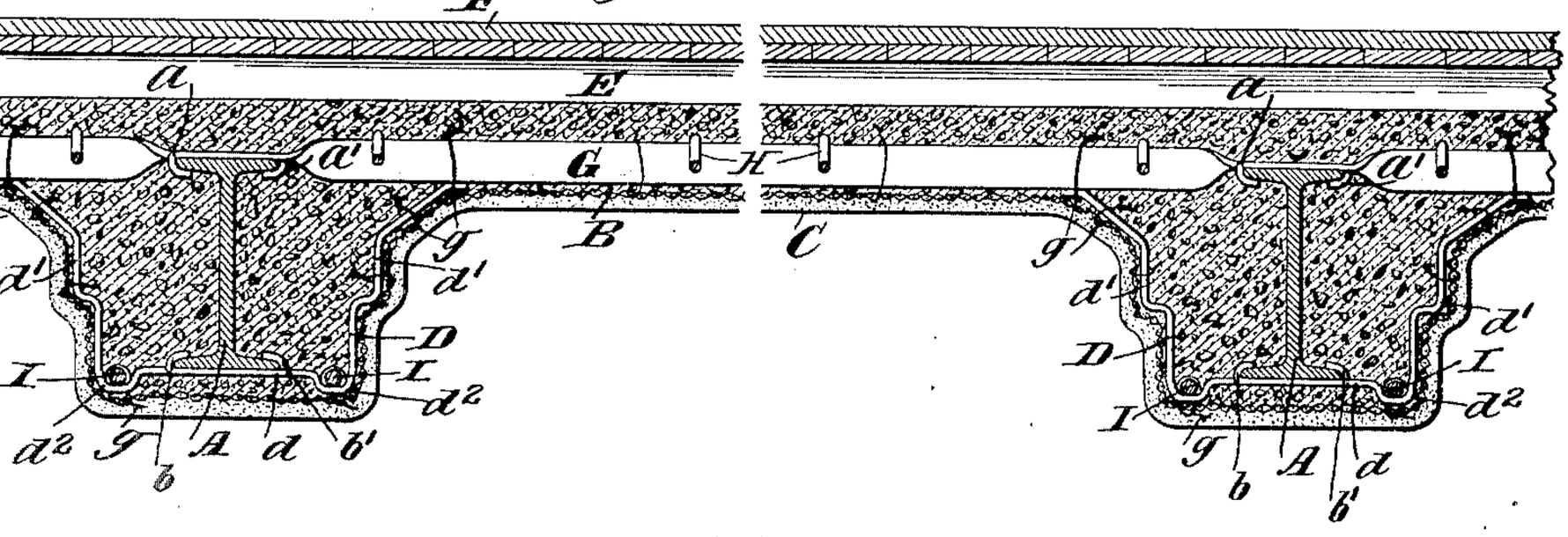



Fig. 2.

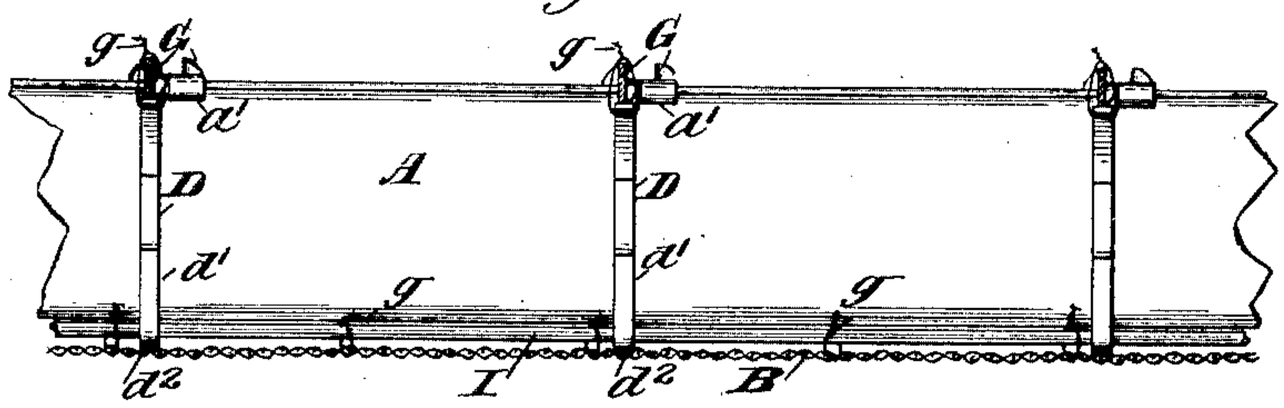
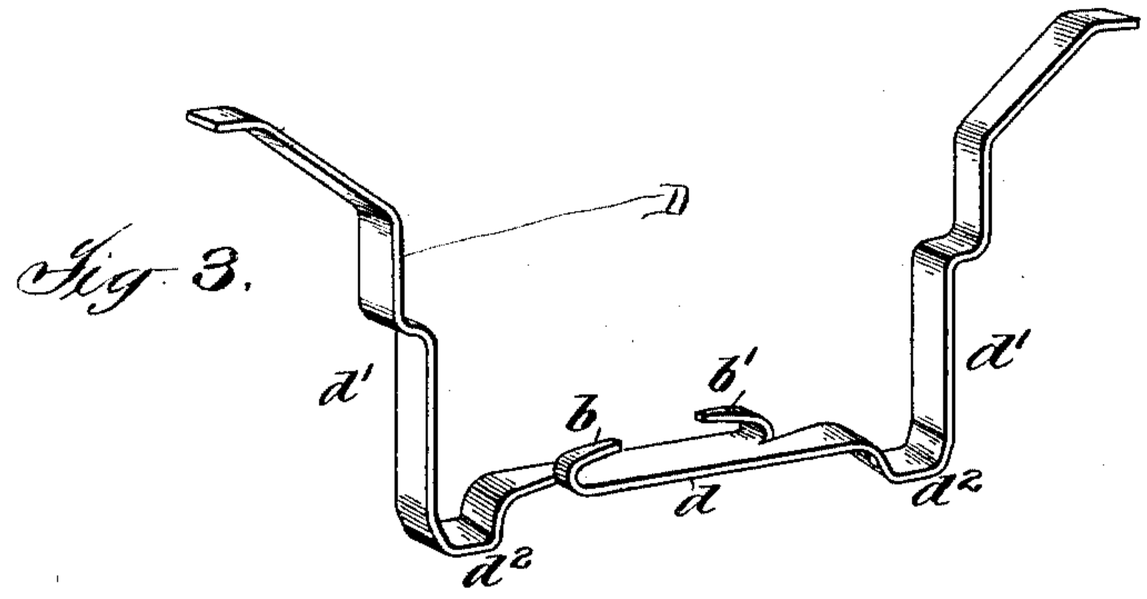



Fig. 3.

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# UNITED STATES PATENT OFFICE.

GEORGE H. KUNNEKE, OF NEW YORK, N. Y., ASSIGNOR TO THE NEW JERSEY WIRE CLOTH COMPANY, OF TRENTON, NEW JERSEY.

## FIREPROOF CONSTRUCTION AND HANGER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 675,487, dated June 4, 1901.

Application filed February 21, 1900. Serial No. 6,024. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. KUNNEKE, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Fireproof Constructions and Hangers Therefor, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to improvements in fireproof constructions, the improvements of the present invention having reference particularly to a hanger for supporting metal-work from flanged beams, especially in the formation of false beams—*i. e.*, beams consisting of concrete or other plastic material—in which are embedded the flanged iron ceiling-beams, and which in the finished ceiling project downwardly beyond the plane of the ceiling proper.

The especial object of the present invention is the provision of an improved form of hanger for supporting from the beams the wire lathing or other form of reticulated metal, which, with the iron beams and plastic material, constitutes the false beams.

As a full understanding of the invention can best be had from a detailed description of an organization embodying the same, such description will now be given in connection with the accompanying drawings, which illustrate the invention applied in its preferred form in connection with a false beam, and in which—

Figure 1 is a vertical section of a combined fireproof floor and ceiling construction containing the present invention in its preferred form, employing wire lathing for the metal-work, the view being taken transversely to the ceiling-beams. Fig. 2 is a vertical section at right angles to Fig. 1, omitting the flooring, wire lathing, and plastic material of that figure; and Fig. 3 is a detail in perspective of one of my improved hangers.

Referring to said drawings, A represents a pair of ordinary combined floor and ceiling flanged iron beams of I form in cross-section.

The hangers are shown applied in connection with a floor and ceiling construction, in which B is the wire lathing, extending along the ceiling and about the beams A; C, the concrete or other plastic material in which the beams A are embedded, with the usual finish of plaster below, and D the hangers for supporting from the beams A the wire lathing B, within which is filled in the plastic material C, of which the false beams projecting below the ceiling proper are formed in the construction shown. A plastic finish is shown as applied on the outside of the lathing, as usual in ceiling-work, and in some cases plastic material may be applied only on the outside of the lathing, thus forming a hollow false beam. On top of the plastic material C are placed the usual sleepers E and boarding F of the floor, and in the plastic material are embedded metal joists G, extending from beam to beam. The metal joists G are, as will be observed, secured to the beams A by downwardly and inwardly bent hooks *a a'* integral therewith, which embrace the flanges at the upper end of the beams, and the several joists are connected together by spanners H, also embedded in the plastic material C. These metal joists G, as is well understood, serve as supports for the wire lathing B of the ceiling proper, the lathing being laced to them at intervals by short lengths of wire *g*.

Each of the hangers D, to which the present invention particularly relates, consists of a rod or strip of metal bent so as to provide a body portion *d*, secured to and extending across and below the flanged beam A, and diverging portions *d'*, extending upwardly on opposite sides of the beam A toward the joists G. Each hanger D is secured to its beam A by inwardly and downwardly bent clips *b b'*, which are cut from the body *d* of the support and bent up and over the bottom flanges of the beam, so as to securely hold the support in position and through it retain the lathing and plastic material properly. The body portion *d* is shown as bent downwardly at its ends to provide recesses $d^2$ for the reception of supporting-rods I, to which the lathing is laced at intervals by short lengths of wire *g*, the lathing being also similarly laced at intervals to the upwardly-extending ends *d'* of the hanger D. The diverging portions *d'* of the hanger D are bent or corru-

gated transversely, as shown, to conform to the shape in cross-section which it is desired to give to the false beam and in the construction shown extend upwardly to the joists G, to which they are connected by short lengths of wire *g*. A number of these hangers D are strung along the beams at suitable distances.

It will be understood that the invention is not limited to the exact form of the hanger shown and that my hanger may be used for supporting other material than wire lathing or reticulated metal in any form.

What I claim is—

1. A hanger formed in a single piece and comprising a body portion having clips integral with the hanger adapted to take over the bottom flange of a beam, and upwardly-extending end portions on opposite sides of the beam, substantially as described.

2. A hanger formed in a single piece and comprising a body portion having clips *b*, *b'* adapted to take over the bottom flange of a beam, and upwardly-extending diverging end portions on opposite sides of the beam, substantially as described.

3. Hanger D having body portion *d*, clips *b*, *b'* and diverging end portions *d'*, substantially as described.

4. Hanger D having body portion *d*, clips *b*, *b'*, diverging end portions *d'* and recesses $d^2$ for receiving rods, substantially as described.

5. In a fireproof floor or ceiling construction, the combination with flanged beams extending below the plane of the floor or ceiling, of hangers D formed of a single piece and having body *d*, clips *b*, *b'* overlapping the beam-flanges, and end portions *d*, *d'* extending upward to the ceiling or floor, and reticulated metal and plastic material on said hangers, substantially as described.

6. In a fireproof floor or ceiling construction, the combination with flanged beams extending below the plane of the floor or ceiling, of hangers D formed of a single piece and having body *d*, clips *b*, *b'* overlapping the beam-flanges, end portions *d*, *d'* extending upward to the ceiling or floor, rods $d^2$ carried by the hangers on opposite sides of the beam, and reticulated metal and plastic material on said hangers and rods, substantially as described.

7. In a fireproof floor or ceiling construction, the combination with flanged beams extending below the plane of the floor or ceiling, of hangers D formed of a single piece and having body *d*, clips *b*, *b'* overlapping the beam-flanges, end portions *d*, *d'* extending upward to the ceiling or floor, rods $d^2$ carried by the hangers on opposite sides of the beam, reticulated metal on said hangers inclosing the beams, and plastic material filling the space within said reticulated metal about the beams, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEO. H. KUNNEKE.

Witnesses:
C. J. SAWYER,
A. A. V. BOURKE.