No. 675,486. Patented June 4, 1901.

G. H. KUNNEKE.

FIREPROOF CONSTRUCTION AND HANGER THEREFOR.

(Application filed Feb. 21, 1900.)

(No Model.)

Fig. 1.

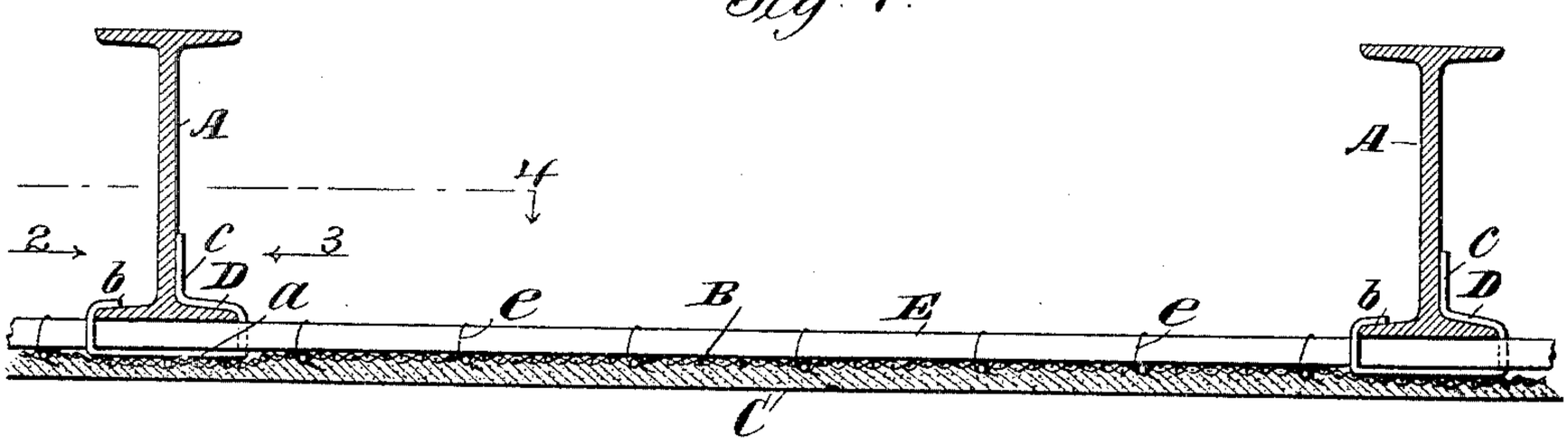

Fig. 2.

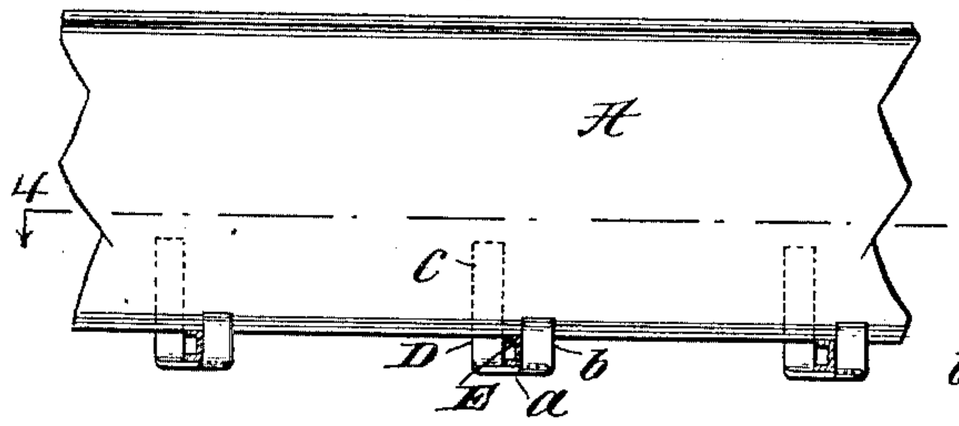

Fig. 3.

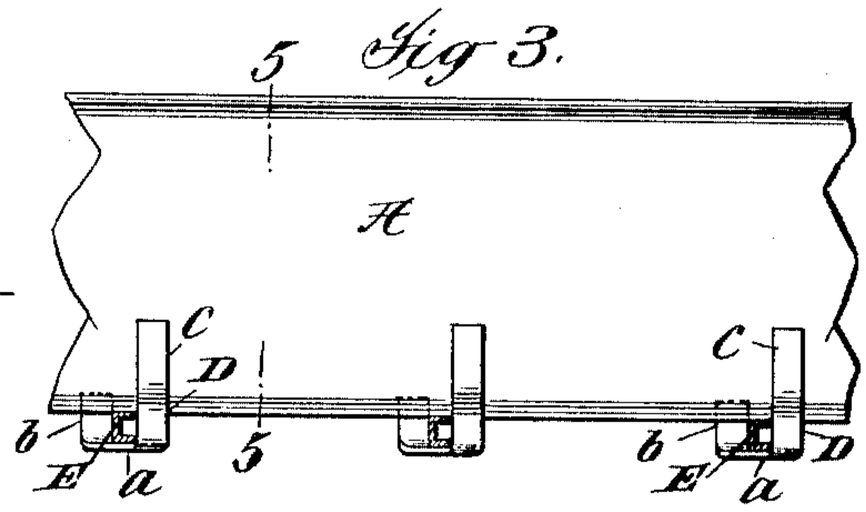

Fig. 4.

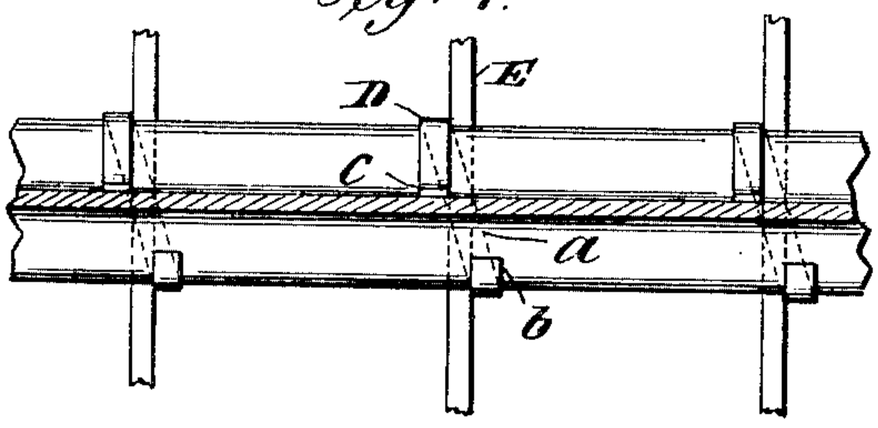

Fig. 5.

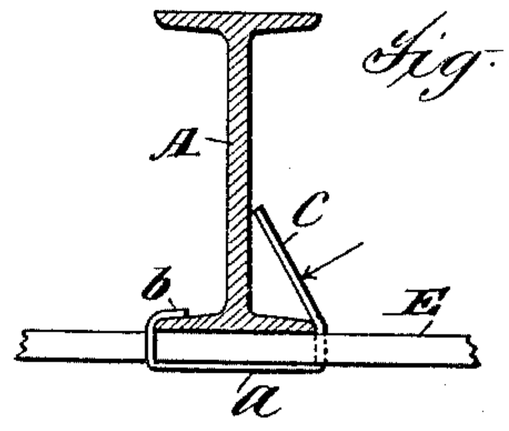

Fig. 6.

Attest:
John A. Graves
S. Whitehal.

Inventor:
George H. Kunneke
By Phil for Phelps & Sawyer
Attys

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. 675,486, dated June 4, 1901.

Application filed February 21, 1900. Serial No. 6,023. (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 overhead or ceiling constructions and to hangers for supporting ceiling-rods from the beams.

It is the object of the present invention, briefly stated, to provide a hanger which can be expeditiously applied and which when so applied will support the ceiling-rods and the ceiling firmly and strongly and against any tendency to sag or to become otherwise displaced, and, further, to provide a hanger which, while effective for this purpose, will also be simple in construction and method of application and cheap as to material and cost of manufacture.

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

Figure 1 is a vertical section of a fireproof ceiling or overhead construction of a well-known type containing the present invention in its preferred form, the view being taken transversely to the ceiling-beams. Fig. 2 is a vertical section at right angles to Fig. 1 and looking in the direction of the arrow 2 in that figure, the lathing and plastic material, however, being omitted. Fig. 3 is a similar view, but looking in the direction indicated by the arrow 3 in Fig. 1. Fig. 4 is a horizontal section through one of the beams, taken on the line 4 of Figs. 1 and 2 and also omitting the lathing and plastic material. Fig. 5 is a section on the line 5 of Fig. 3, illustrating the manner in which the hanger is applied to and secured about the beam; and Fig. 6 is a detail in perspective of one of the hangers, illustrating the shape of the hanger prior to its application.

Referring to said drawings, A represents a pair of ordinary flanged iron beams; B, the wire lathing; C, the plastic ceiling; D, the hangers, and E the ceiling-rods, on which the lathing is supported by wire ties *e*.

The invention consists in the hangers D, each of which consists of a rod or strip of bendable metal of any suitable shape in cross-section, but preferably of the oblong section shown, so that the hanger will present a broad bearing-surface to the ceiling-rod E and the flanges of the beam A and at the same time be of such thinness consistent with the strength required as to be readily bent at its ends about the beam, so as to be secured thereto and firmly support the ceiling. The hanger D has a body portion *a* extending across the beam A and below said beam and the ceiling-rod E and two end portions *b c*, of such length, respectively, that when bent inwardly toward each other the end portion *b* will lap over one of the flanges of the beam A and the end portion *c* will entirely overlap the opposite flange of the beam and extend upward along the web of the beam, as illustrated in Fig. 1.

Before its application to the beam A the hanger D is of the shape shown in Fig. 6, with its end portions *b c* bent upwardly from its body portion *a* and also laterally therefrom in opposite directions, so that when applied to the ceiling-rod E said end portions will lie on opposite sides of the rod E and the body portion of the hanger extend across the rod in an oblique direction, as indicated by dotted lines in Fig. 4.

Upon the application of the hanger to the ceiling-rod E the end portion *b* of the hanger is bent, by means of a hammer or other suitable tool, inwardly and downward upon the flange of the beam A, and the end portion *c* is then bent inwardly against the web of the beam, so as to hold the rod *c*, and is then bent inward to conform to the angle between the web and flange by striking it with a hammer or sledge at the point indicated by the arrow in Fig. 5 until said end portion bears against the flange of the beam and a portion of the

web thereof, as indicated in Fig. 1. As the end portion *c* of the hanger is thus bent into position the body portion *a* thereof will by such bending of the end portion be drawn up toward the beam A, so as to press the ceiling-rod E firmly and snugly against the lower end of the beam A, and the hooked end *b* will be drawn up tight on the opposite flange, securing a very tight firm support of the ceiling-rods E. With this construction of hanger the lathing, with its plastic material or other form of ceiling supported by rods E, will be held firmly against any tendency to sag or to become otherwise displaced.

It will be understood that this form of hanger may be used for supporting rods for other purposes than suspending a ceiling.

What I claim is—

1. The combination with the beams and ceiling-rods extending transversely to the beams of an overhead fireproof construction, of hangers for the ceiling-rods each comprising a body portion extending across and below the beam and across and below a ceiling-rod and having at one end an inwardly and downwardly bent portion overlapping the flange and web of the beam, the opposite end of the body portion being on the opposite side of the ceiling-rod and suitably secured to the opposite side of the beam, substantially as described.

2. The combination with the beams and ceiling-rods extending transversely to the beams of an overhead fireproof construction, of hangers for the ceiling-rods each comprising a body portion extending across and below the beam and across and below a ceiling-rod and having at one end an inwardly and downwardly bent portion overlapping the flange and web of the beam, and at its other end an inwardly and downwardly bent portion overlapping the opposite flange of the beam on the opposite side of the ceiling-rod, substantially as described.

3. The combination with flanged beams A, and rods E extending transversely to the beams, of hangers I, each comprising a body portion *a*, extending across and under a beam and rod, and downwardly and inwardly bent ends *b c* on opposite sides of the beam-flange and on opposite sides of the rod overlapping the flange of the beam with the end portion *c* also overlapping the web of the beam, substantially as described.

4. A hanger comprising body portion *a* formed to extend across the bottom of a flanged beam and across and under a rod extending transversely to the beam and bendable end portions *b c*, adapted to overlap the opposite sides of a flanged beam and end portion *c* being of such length as to overlap, when bent, a flange and the web of the beam, substantially as described.

5. A hanger comprising body portion *a* formed to extend across the bottom of a flanged beam and across and under a rod extending transversely to the beam and bendable end portions *b c*, said end portions extending upwardly from the body portion *a* and laterally therefrom in opposite directions and adapted to overlap the opposite sides of a flanged beam, and the end portion *c* being of such length as to overlap, when bent, a flange and the web of the beam, 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.