

E. I. DODDS.
STRUCTURAL METAL PART.
APPLICATION FILED FEB. 13, 1904.

899,033.

Patented Sept. 22, 1908.

Fig. 1.

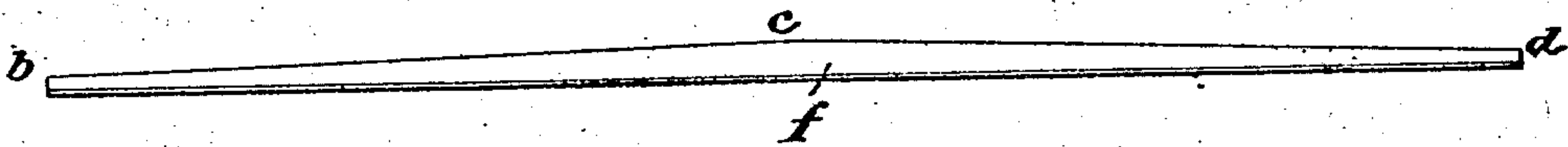


Fig. 2.

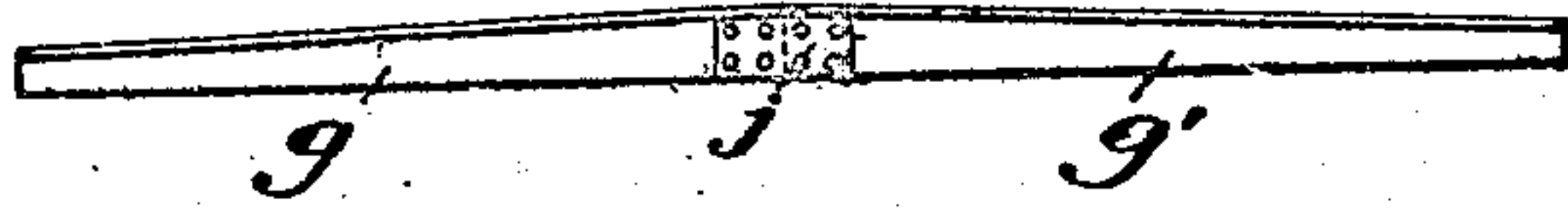


Fig. 3.

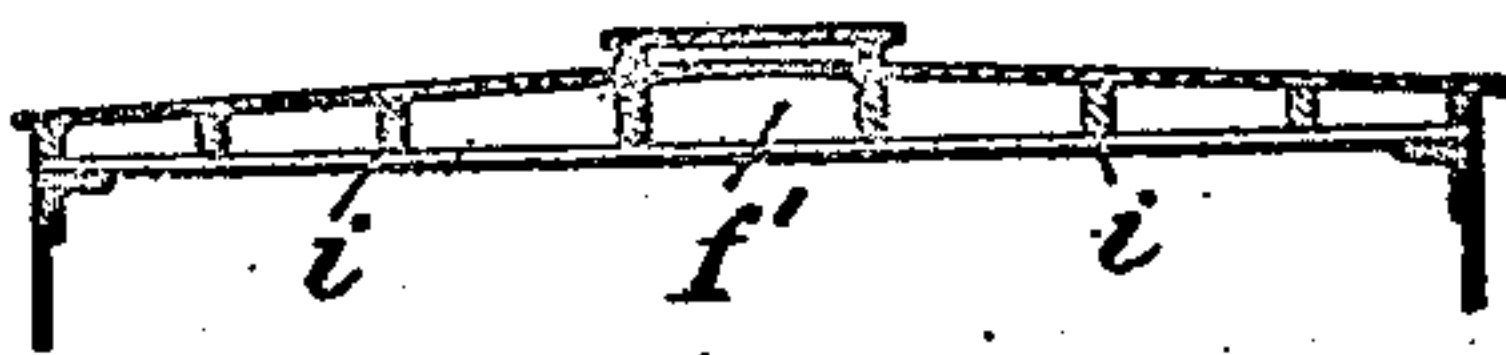


Fig. 5.

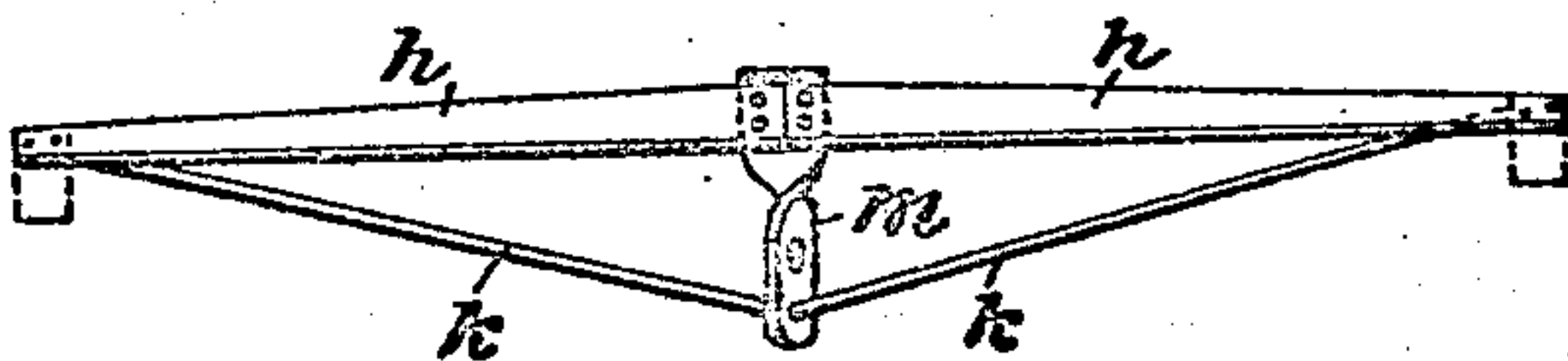


Fig. 4.

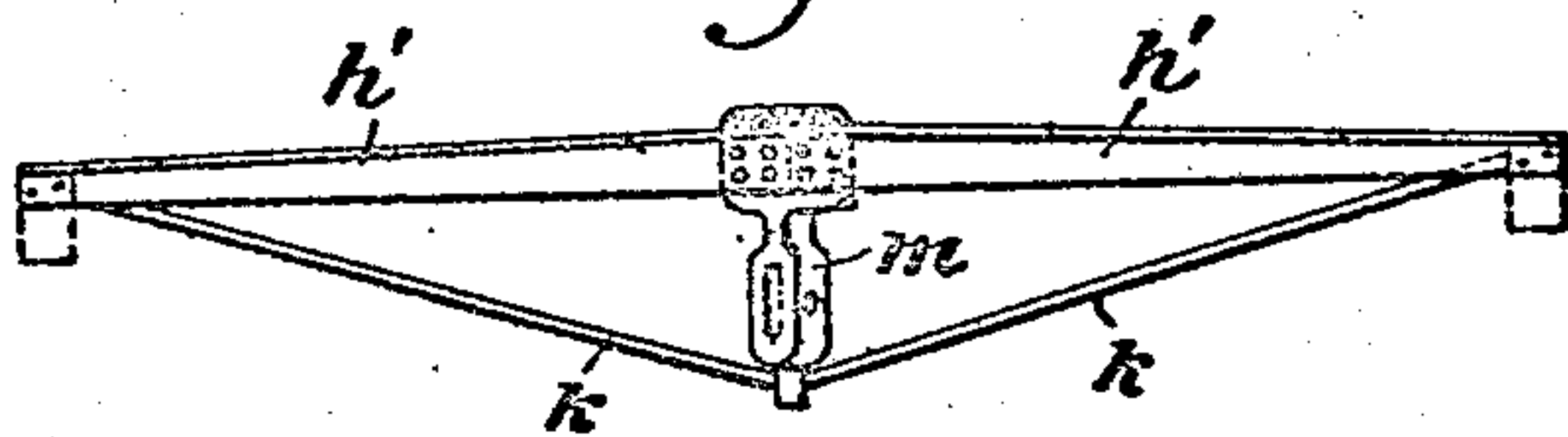
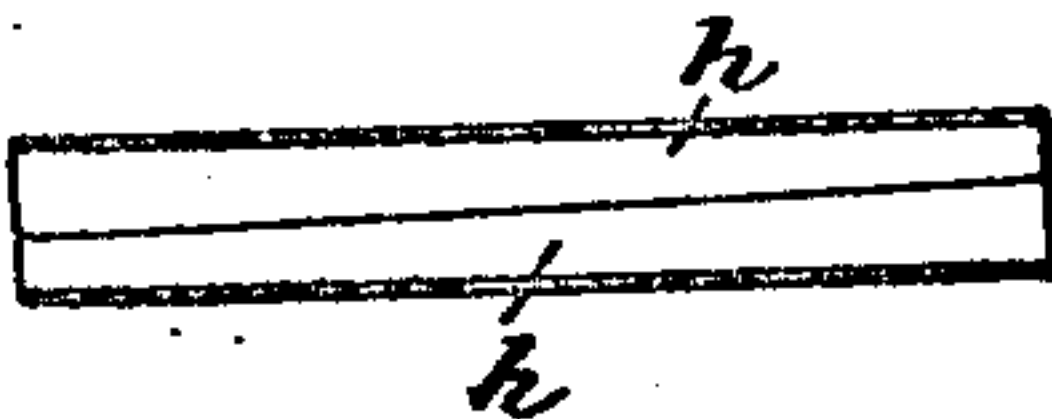


Fig. 6.



Fig. 7.



WITNESSES

L. A. [Signature]
H. M. [Signature]

INVENTOR

E. I. Dodds

UNITED STATES PATENT OFFICE.

ETHAN I. DODDS, OF AVALON, PENNSYLVANIA, ASSIGNOR TO PRESSED STEEL CAR COMPANY,
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STRUCTURAL METAL PART.

No. 899,033.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed February 13, 1904. Serial No. 193,421.

To all whom it may concern:

Be it known that I, ETHAN I. DODDS, of Avalon, Allegheny county, Pennsylvania, have invented a new and useful Structural Metal Part, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows in elevation a car purlin made in accordance with my invention; Fig. 2 is a view of a modified construction on a smaller scale; Fig. 3 is a sectional view of a car construction to which my purlin has been applied; Figs. 4 and 5 are plan views of brake-beams embodying my invention, and Figs. 6 and 7 show the mode of forming the parts.

My invention consists in making structural metal parts, particularly for use as the parts of railway cars such as roof-purlins and brake-beams of metal pieces tapering from the middle towards both ends and constituted by dividing a flanged beam longitudinally through the web with a bias cut or cuts.

In the drawing I show my invention applied to the manufacture of purlins and brake-beams. The purlin shown in Figs. 1 and 3 is made from an I-beam or channel which, as shown in Fig. 6, is divided by longitudinal bias-cuts *b*, *c*, and *c*, *d*, extending longitudinally through the web of the beam, and a transverse cut *c*, *e*, thus making parts *f*, *g*, *g'* of tapering form, the part *f* being wider at the middle than at the ends and

having along one edge the original flange of the I-beam or channel, while the other edge is unflanged. This part *f* constitutes the purlin of Fig. 1.

In Fig. 2 I show the purlin made of two pieces *g*, *g'*, constituted by dividing an I-beam or channel with a longitudinal bias cut through its web as shown in Fig. 7, the wider ends of the pieces being abutted and united by a riveted plate *j*.

In Fig. 3 I show a car in which a purlin *f'*, such as shown in Fig. 1, is applied, *i*, *i* representing the usual longitudinal roof supports.

In Fig. 5 I show a brake-beam which is made of the parts *h*, *h*, above described, suitable braces and irons *k*, *k*, and a connecting-plate *m* being applied thereto.

The brake-beam shown in Fig. 4 is made of parts *h'*, *h'* made as described with reference to Fig. 7.

I claim:—

A blank for a structural metal part composed of a channel beam slit or cut in a longitudinal direction from each end at points near one edge of the beam upwardly to a central point near the opposite edge of said beam and slit or cut transversely of the beam from the near edge to said central point.

In testimony whereof, I have hereunto set my hand.

ETHAN I. DODDS.

Witnesses:

JOHN MILLER,
H. M. CORWIN.