E. I. DODDS.

STRUCTURAL METAL PART.

APPLICATION FILED FEB. 13, 1904.

899,033. Patented Sept. 22, 1908.

Fig. 1.

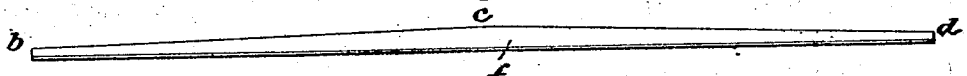

Fig. 2.

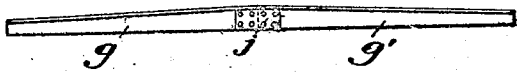

Fig. 3.

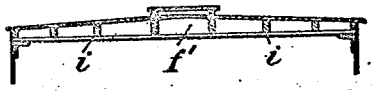

Fig. 5.

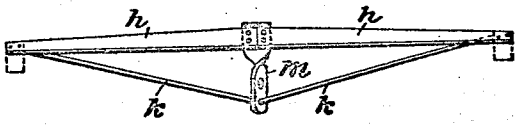

Fig. 4.

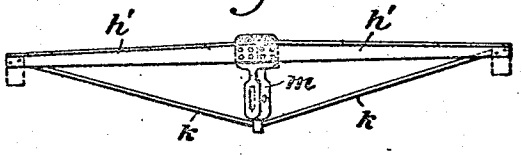

Fig. 6.

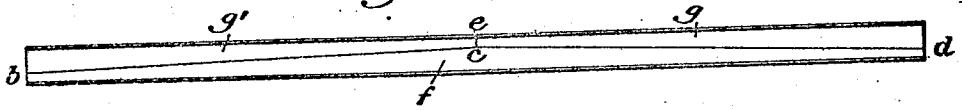

Fig. 7.

WITNESSES

L. A. Somers

H. M. Corwin

INVENTOR

Ethan I. Dodds

UNITED STATES PATENT OFFICE.

ETHAN I. DODDS, OF AVALON, PENNSYLVANIA, ASSIGNOR TO PRESSED STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

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.