(No Model.)

B. BAGSHAWE.

FRAME PLATE FOR CAR TRUCKS.

No. 551,523. Patented Dec. 17, 1895.

Fig. 1.

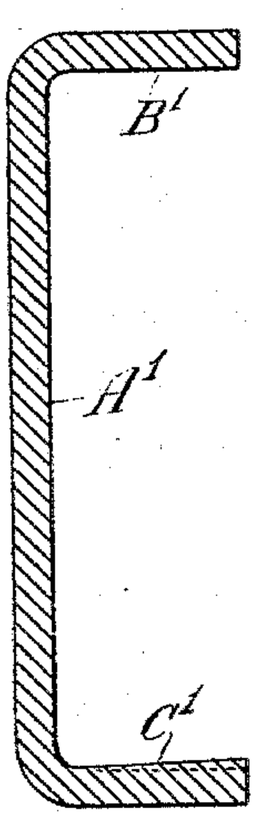


Fig. 3.

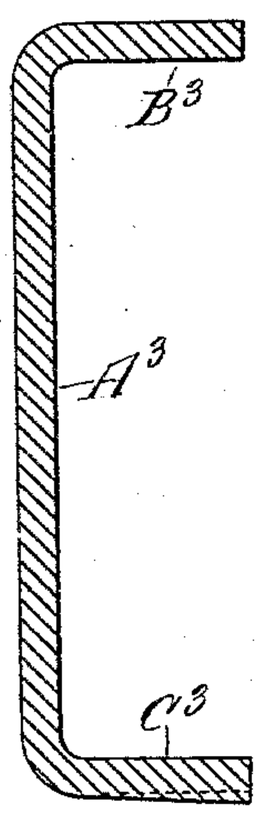


Fig. 5.

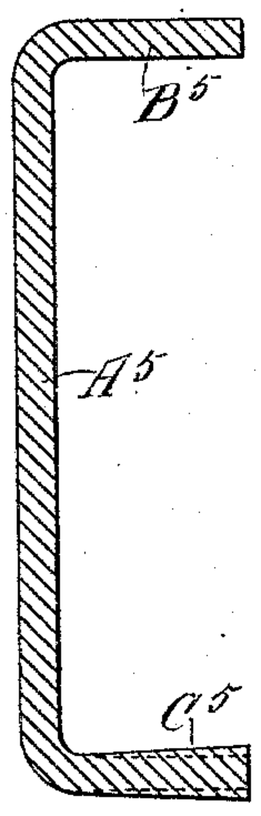


Fig. 7.

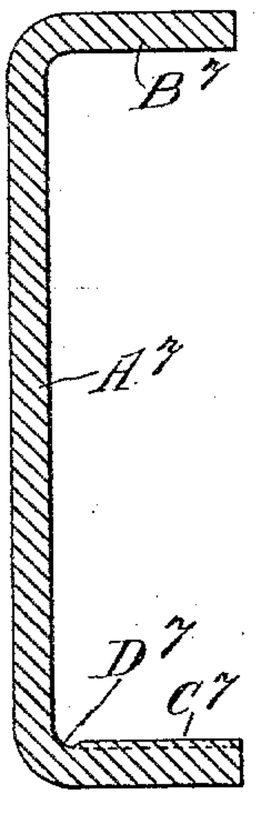


Fig. 9.

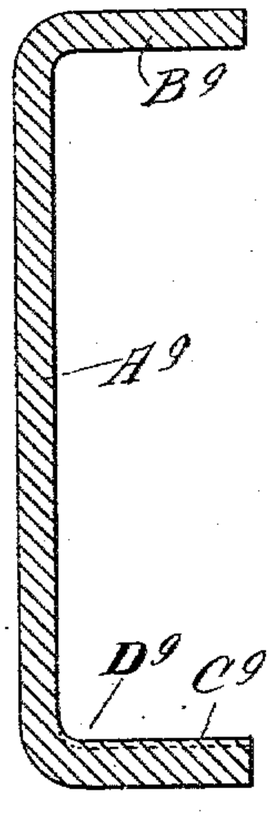


Fig. 2.

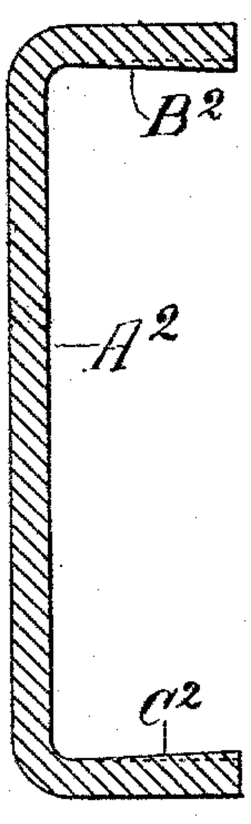


Fig. 4.

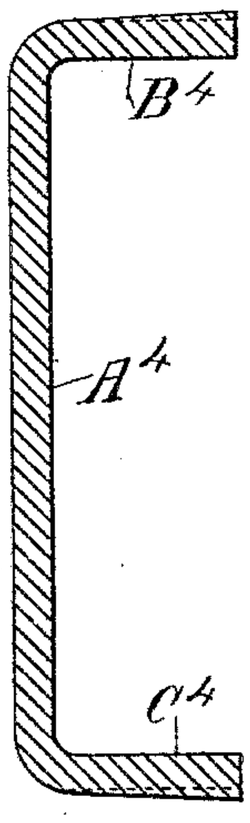


Fig. 6.

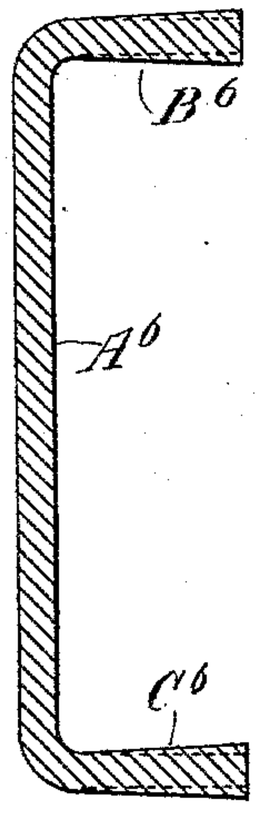


Fig. 8.

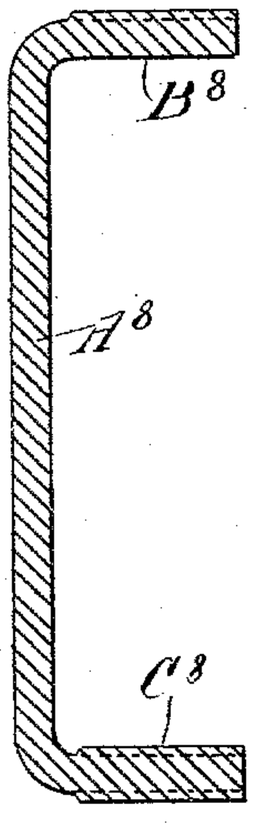
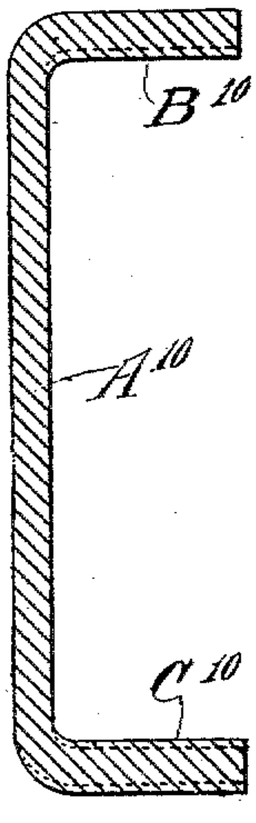


Fig. 10.



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Jas. J. Cullen

INVENTOR
Bernal Bagshawe

BY
E. N. Dickerson
His ATTORNEY

UNITED STATES PATENT OFFICE.

BERNAL BAGSHAWE, OF HEADINGLY, ENGLAND, ASSIGNOR TO THE FOX SOLID PRESSED STEEL COMPANY, OF CHICAGO, ILLINOIS.

FRAME-PLATE FOR CAR-TRUCKS.

SPECIFICATION forming part of Letters Patent No. 551,523, dated December 17, 1895.

Application filed February 13, 1894. Serial No. 500,004. (No model.)

To all whom it may concern:

Be it known that I, BERNAL BAGSHAWE, of Headingly, Leeds, York county, England, have invented a new and useful Improvement in the Construction of Frame-Plates for Car-Sills, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to an improvement in channel-plates which are especially adapted for use in the construction of the under frames and sills for car-trucks.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 is a cross-sectional view of one form of my improvement, and Figs. 2, 3, 4, 5, 6, 7, 8, 9 and 10 are similar views of modifications.

My invention comprises a channel-bar in which one or both of the parallel members or flanges has a thickness greater than the main member or section. This increased thickness is attained in several ways—*i. e.* by making the inner face of one of the flanges C′ inclined slightly toward the central section A′, so that the flange will extend inwardly in width toward its outer edge, as shown in Fig. 1; or as in Fig. 3 by making the outer face of one flange C^3 inclined slightly away from the central section A^3, so that the flange will gradually expand outwardly in width from the central member; or, as illustrated in Fig. 5, both faces of one flange C^5 may be made to taper away from the center of the flange; or, as shown in Fig. 7, one face of the flange C^7 may be of uniform increased thickness, the portion D^7 connecting the flange to the central section being only of the normal thickness of the plate; or, as shown in Fig. 9, one face of the flange C^9 may be of uniform increased thickness, the flange being connected to the central section of the plate by a portion D^9, gradually decreasing from the thickness of the flange to the thickness of the central section A^9.

In Figs. 1, 3, 5, 7, and 9, only one of the flanges is shown as thickened, but if found necessary or desirable both may be thickened in the same way, as illustrated in Figs. 2, 4, 6, 8, and 10.

The thickened flange is of course that one which when built into a structure must bear the greatest strain. Thus when the lower flange of a channel-bar is to be used as the tension member of the structure, of which it forms a part, such flange should be made of greater thickness than the rest of the bar. This form of channel-plate possesses this advantage over those of uniform thickness. In structures such as freight-car trucks where great strength of flange is required, such strength is obtainable by this thickening, instead of widening the flange so that the same sectional area is obtained in more compact form. Interference of extended flanges with other parts of the truck-frame is avoided and the channel-bars rendered more convenient in form for transportation.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A channel-bar, having a central section and top and bottom flanges, one of the flanges being thickened and connected with the central section by a portion which for a part of its length is of substantially the same thickness as the central section, substantially as specified.

2. A channel-bar, having a central section and top and bottom flanges, one of the flanges being of tapering cross-section and connected with the central section by a portion which for a part of its length is of substantially the same thickness as the central section, substantially as specified.

3. A rolled steel channel for the construction of car truck frames, having a central section and top and bottom flanges, one of the flanges being thickened and connected with the central section by a portion which for a part of its length is of substantially the same thickness as the central section, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BERNAL BAGSHAWE.

Witnesses:

H. S. HEPWORTH,

ALEX. L. CROFT.