No. 723,046. PATENTED MAR. 17, 1903.

C. S. SHALLENBERGER.

PRESSED METAL DRAFT SILL.

APPLICATION FILED JULY 14, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

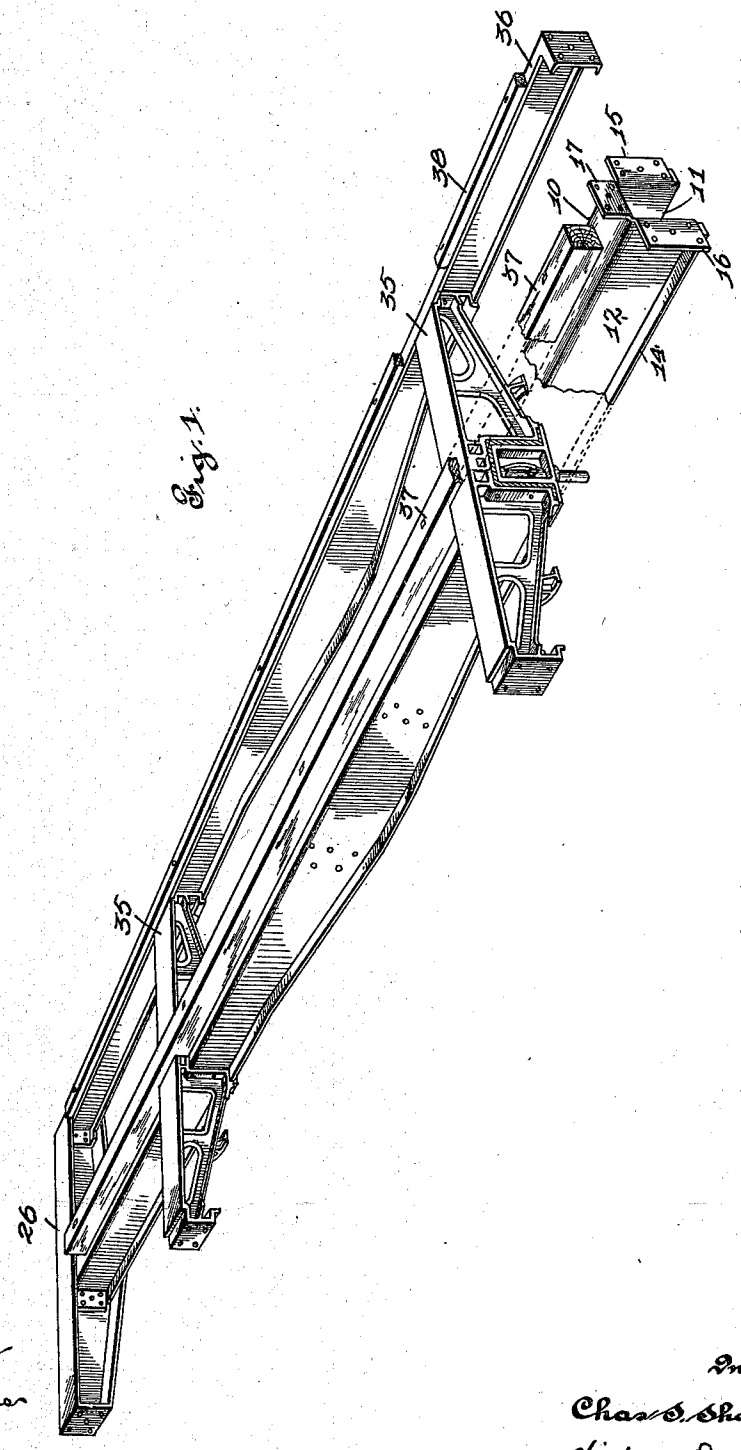

Fig. 1.

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NO MODEL. 3 SHEETS—SHEET 2.

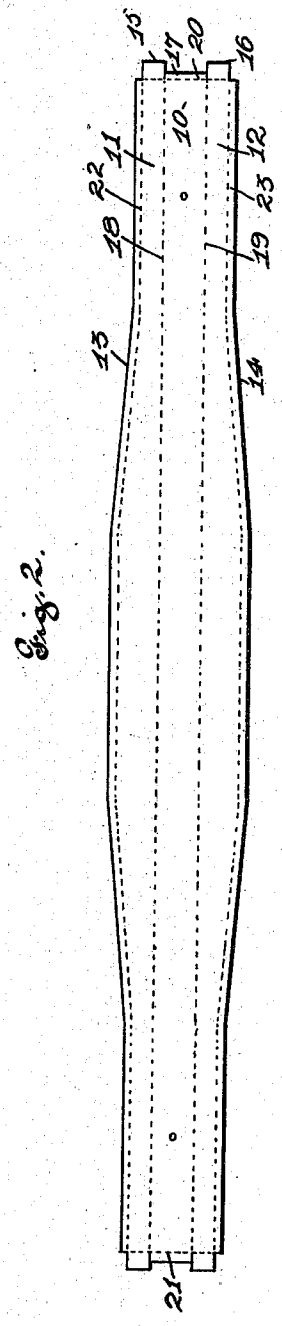

Fig. 2.

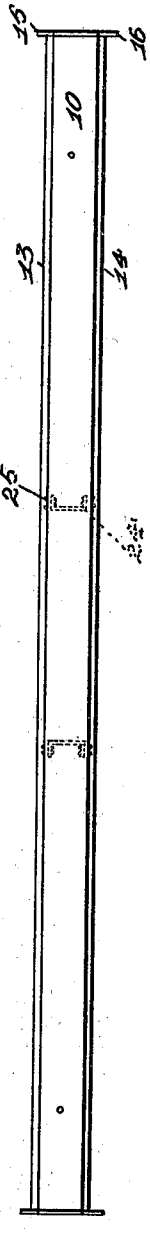

Fig. 3.

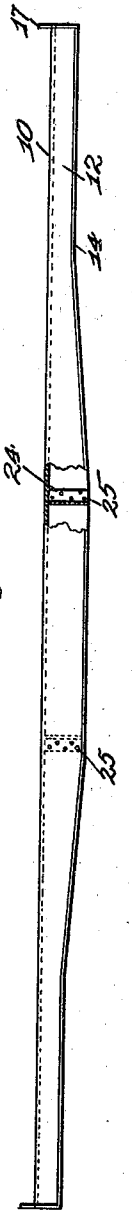

Fig. 4.

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PRESSED METAL DRAFT SILL.

APPLICATION FILED JULY 14, 1902.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 5.

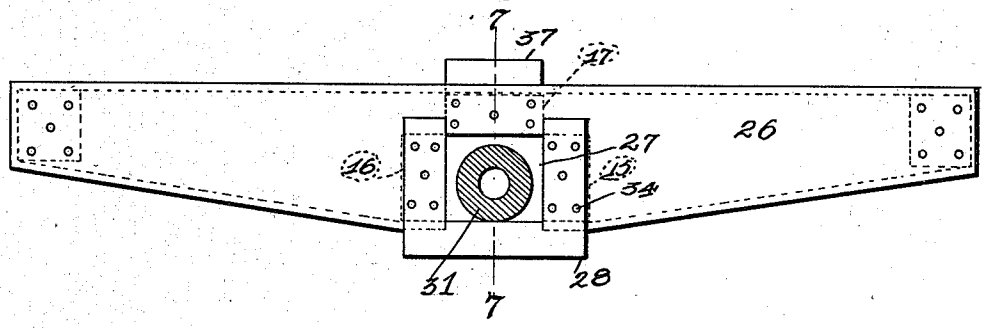


Fig. 6.

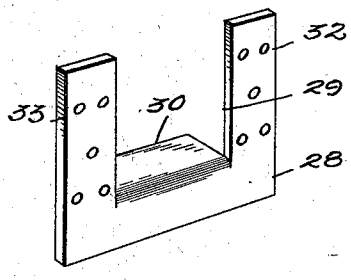
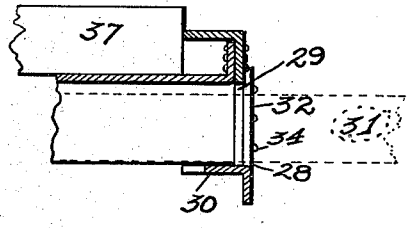


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES S. SHALLENBERGER, OF MILWAUKEE, WISCONSIN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO REPUBLIC RAILWAY APPLIANCE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF ILLINOIS.

PRESSED-METAL DRAFT-SILL.

SPECIFICATION forming part of Letters Patent No. 723,046, dated March 17, 1903.

Application filed July 14, 1902. Serial No. 115,584. (No model.)

To all whom it may concern:—

Be it known that I, CHARLES S. SHALLENBERGER, of the city of Milwaukee, Milwaukee county, State of Wisconsin, have invented certain new and useful Improvements in Pressed-Metal Draft-Sills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My object is to construct an improved pressed-metal draft-sill and method of making the same; and my invention consists of the novel features herein shown, described, and claimed.

Figure 1 is a view in perspective illustrating the incorporation of my improved pressed-metal draft-sill into a car-bed. Fig. 2 is a plan of the sheet-metal blank before it is bent to form the draft-sill. Fig. 3 is a plan of the draft-sill produced from the blank shown in Fig. 2. Fig. 4 is a side elevation of the draft-sill shown in Fig. 3. Fig. 5 is a front elevation of the end sill, showing the draw-bar in position and illustrating the means of attaching the end sill to the draft-sill. Fig. 6 is a perspective of the bracket which holds the draw-bar in position. Fig. 7 is a cross-section on the line 7 7 of Fig. 5.

Referring to the drawings in detail, the blank shown in Fig. 2 is cut from a sheet of metal and comprises the central horizontal web 10, the truss-shaped vertical side webs 11 and 12, the horizontal stiffening-flanges 13 and 14, the lateral attaching-flanges 15 and 16, extending from each end of the webs 11 and 12, and the vertical attaching-flanges 17, extending from the ends of the web 10, as shown in Fig. 2. The central web is bounded by the longitudinally-extending imaginary lines 18 and 19 and the transversely-extending lines 20 and 21. The vertical web 11 extends from the line 18 to the line 22 and the vertical web 12 extends from the line 19 to the line 23. The flanges 13 and 14 extend from the lines 22 and 23 outwardly to the edges of the blank. The lines 22 and 23 diverge, running from the ends toward the center, so as to make the webs 11 and 12 wider at the centers than at the ends. After the blank has been formed the flanges 13 and 14 are bent upwardly at right angles to the webs 11 and 12, the end flanges 15 and 16 and 17 are bent upwardly at right angles to the webs 10, 11, and 12, then the webs 11 and 12 are bent downwardly upon the lines 18 and 19, thus producing the draft-sill shown in Figs. 3 and 4 and also shown in Fig. 1, said draft-sill being in the form of a channel-bar in cross-section and extending from end to end of the car-bed. Braces 24 are inserted between the webs 11 and 12 near their centers, as shown in Figs. 3 and 4, said braces 24 being in the form of channel-bars standing on their ends, with their side flanges secured to the webs 11 and 12 by the rivets 25.

The end sills 26 have notches 27 extending upwardly from their lower edges and corresponding in size and shape to the passage through the draft-sill, the flanges 15 and 16 of the draft-sill being secured to the inner face of the end sills at the sides of the notches 27 and the flanges 17 being secured to the inner face of the end sill above the notch 27. The bracket 28 has a notch 29 cut from its upper edge to correspond with the notch 27 in the end sill, and a portion of the metal cut out of said notch 29 is bent backwardly to form the flange 30, upon which the draw-bar 31 rests, thus leaving the fastening-arms 32 and 33 to be secured to the front face of the end sill by the same rivets 34 which secure the flanges 15 and 16 to the end sill.

The body-bolsters 35 have recesses extending from their lower faces and at their centers to receive the draft-sill, as shown in cross-section in Fig. 1. The side sills 36 are attached to the ends of the body-bolsters and the timbers 37 and 38 are attached to the draft-sill and to the side sills to form the foundation for the car.

My improved draft-sill is light and inexpensive and at the same time exceedingly efficient.

My improved method consists of cutting a

suitable blank from a sheet of metal and bending the different portions of the blank to form the different elements desired.

This draft-sill takes the place of the two draft-sills of the ordinary construction.

I claim—

1. A pressed-metal draft-sill formed of a single piece of sheet metal, having horizontal and vertical webs extending from one end of the car-bed to the other, and having suitable stiffening-flanges; and suitable fastening-flanges; substantially as specified.

2. A pressed-metal draft-sill having truss-shaped vertical side webs, an upper connecting-web, stiffening-flanges on the lower edges of the side webs, and transverse flanges at its ends, formed of a single piece of metal, and extending from one end of the car-bed to the other; substantially as specified.

3. In the art of making draft-sills, a blank cut from sheet metal and comprising portions to form the central horizontal web 10; the truss-shaped vertical side webs 11 and 12; the horizontal stiffening-flanges 13 and 14; and suitable attaching-flanges, substantially as specified.

4. A pressed-metal draft-sill comprising a central horizontal web; side webs extending vertically from the central web; stiffening-flanges extending from the side webs; and suitable attaching-flanges, substantially as specified.

5. A pressed-metal draft-sill comprising a central web; side webs extending from the central web; stiffening-flanges on the side webs; attaching-flanges extending from the ends of the central web and attaching-flanges extending from the ends of the side webs, substantially as specified.

6. A pressed-metal draft-sill formed from a single piece of metal, having truss-shaped vertical side webs joined by an upper connecting-web, stiffening-flanges on the lower edges of the side webs, and transverse flanges on its ends, and riveted at each end through the end sills and to brackets adapted to receive and hold the draw-bar, substantially as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES S. SHALLENBERGER.

Witnesses:

EDWARD E. LONGAN,

M. G. IRION.