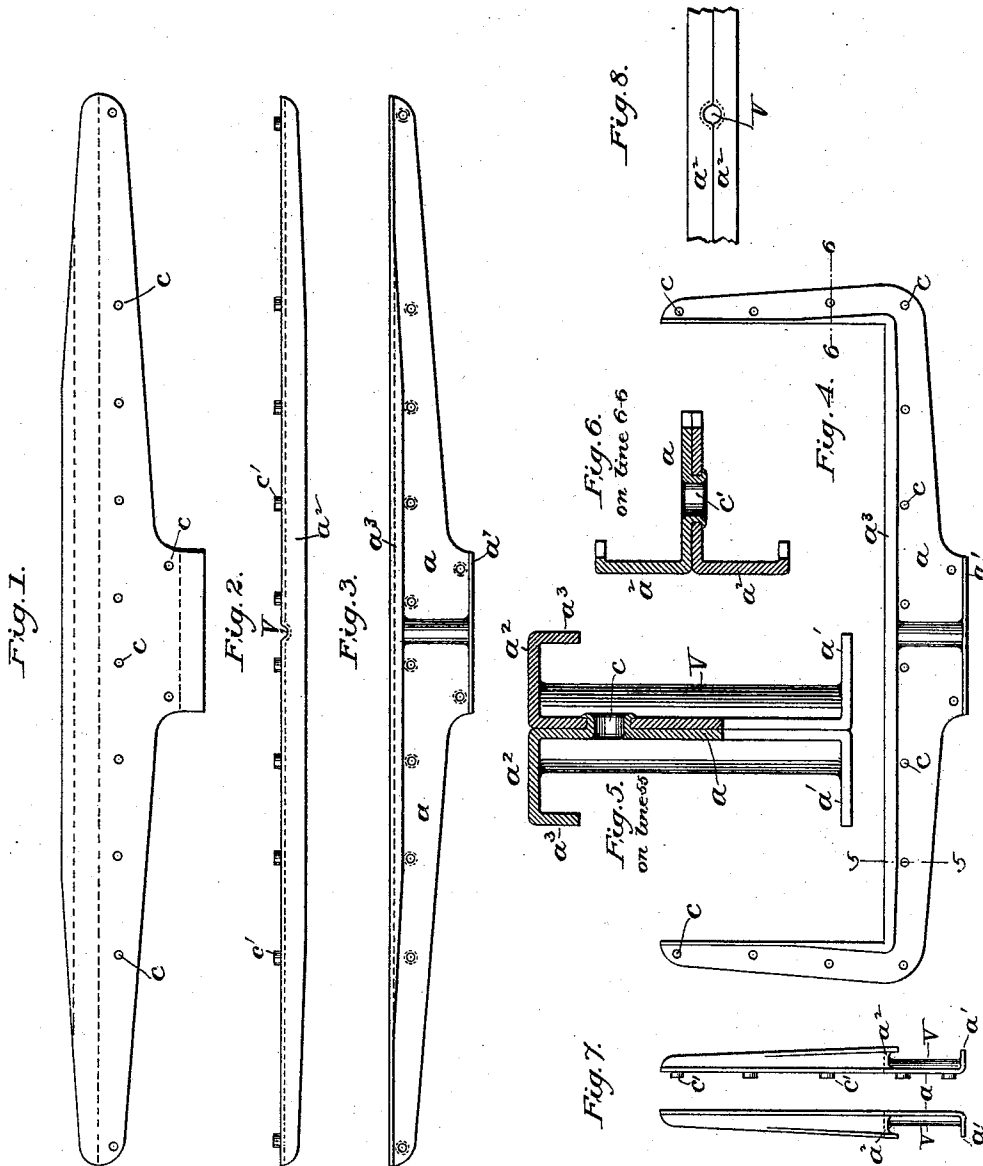


(No Model.)

W. P. BETTENDORF.
WAGON BOLSTER.

No. 479,621.

Patented July 26, 1892.



Witnesses:
Fabius Elmer.
Raymond Barnes.

Inventor:
W. P. Bettendorf
By his Att.
O. F. Lodge

UNITED STATES PATENT OFFICE.

WILLIAM P. BETTENDORF, OF DAVENPORT, IOWA.

WAGON-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 479,621, dated July 26, 1892.

Application filed January 15, 1892. Serial No. 418,135. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. BETTENDORF, of Davenport, county of Scott, and State of Iowa, have invented a new and useful Improvement in Metallic Frames for Wagons, &c., of which the following is a specification.

This invention relates to an improved sheet-metal bolster constructed, together with the standards or stakes at its ends, complete in two pieces.

In the accompanying drawings, Figure 1 is a plan view of one of the blanks. Fig. 2 is a top plan view of this blank after the first bending action. Fig. 3 is a side view of the same. Fig. 4 is a side view of the completed bolster. Fig. 5 is a vertical cross-section of the bolster on the line 5 5, Fig. 4. Fig. 6 is a horizontal cross-section of one of the standards on the line 6 6, Fig. 4. Fig. 7 is an end view showing the appearance of the two blanks immediately before their union. Fig. 8 is a top plan view of the middle of the bolster.

As the first step in the manufacture of my bolster I punch or cut from sheet-steel or other sheet metal of suitable quality and thickness two blanks of the form represented in Fig. 1 and of a length greater than that required for the bolster proper. It will be observed that this blank, rounded at the ends, increases gradually in width toward the middle, where it is materially and abruptly widened on one side. I bend or bolt this blank longitudinally on the dotted lines of Fig. 1, turning the two edges over on the same side at right angles to the middle portion, so that the blank then presents, as shown in Fig. 3, a vertical middle portion or web a , a horizontal bottom flange a' , and a horizontal overhanging top flange a'' , the outer edge of the top flange being preferably turned downward, as shown at a^3 , in order to give a finish and to secure increased rigidity. Before or after the flanging of the edges I form across the middle of the blank a semicircular transverse groove V, this groove appearing in the flat or unflanged face. At any suitable stage in the operation, before or after the flanging of the edges, I punch through each of the blanks a series of holes c , arranging them so that those of the one blank register with those of the other. In forming the holes in one blank the

metal is punched outward in the form of a tubular rivet c' , (shown in the several figures,) the rivets thus formed on one part being intended to pass through the holes in the other. I bend the two flanged ends of each blank upward at right angles to the middle portion, as shown in Fig. 8, that they may serve as parts of the stakes or standards.

The two blanks flanged, punched, and bent up at the ends, as above described, are placed face to face, as shown in Fig. 7, and brought tightly together, the tubular rivets of one being thrust through the holes of the other and flanged or riveted down on the outside, as shown in Fig. 6, so as to bind the two members tightly together throughout their length, and thus unite them in a single rigid structure. It will be observed that when the parts are thus united the standards present a T form in cross-section, as shown in Figs. 4 and 5, wide vertical faces being presented at their inner edges to bear against the sides of the wagon-body. The body of the bolster is of T form with a wide flat bottom surface to bear upon the top axle and with a wide top surface to support the bed or body of the wagon. The flanges turned upward along the top of the bolster and the edges of the standards serve not only to give broad bearing-faces, as explained, but also to give the structure as a whole a great strength and rigidity in proportion to its weight.

While the forms represented are preferred, it is manifest that without departing from the limits of my invention the outline of the flanges may be modified so as to give wider or narrower bearing-surfaces and to produce more or less taper toward the ends.

The essence of the invention lies in the union of two flanged members face to face.

Having thus described my invention, what I claim is—

1. A wagon-bolster constructed of two complementary sheet-metal plates secured together face to face and having their upper and lower edges bent outward to form bearing-surfaces, substantially as shown and described.

2. A wagon-bolster with standards at its ends, composed of two complementary sheet-metal halves, each consisting of a single piece

of sheet metal flanged longitudinally and bent upward at the ends.

3. The sheet-metal bolster consisting of the two united sheet-metal members, each flanged at the base and at the top and upturned at the ends to form standards.

4. The sheet-metal bolster consisting of the two longitudinal sheet-metal members joined face to face, each member having a top flange extending horizontally outward and turned downward at the outer edge.

5. A sheet-metal wagon-standard consisting of two members of L form in cross-section, joined face to face.

In testimony whereof I hereunto set my hand, this 15th day of December, 1891, in the presence of two attesting witnesses.

WILLIAM P. BETTENDORF.

Witnesses:

THOS. B. CARSON,
E. D. CLARK.