W. D. FORSYTH.

DRAW BAR YOKE.

APPLICATION FILED MAY 26, 1916.

1,216,430.

Patented Feb. 20, 1917.

Fig. 1.

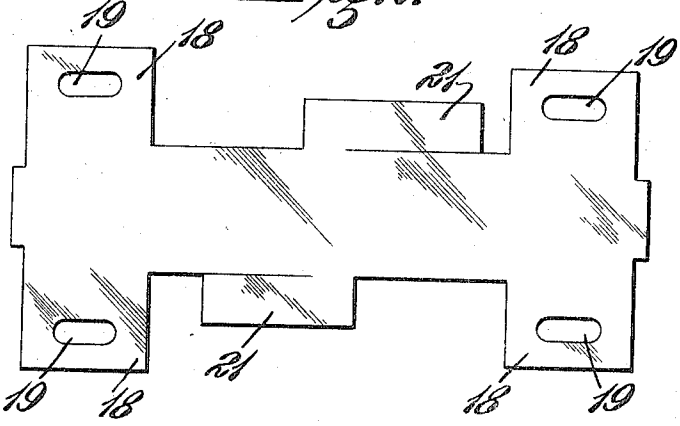


Fig. 2.

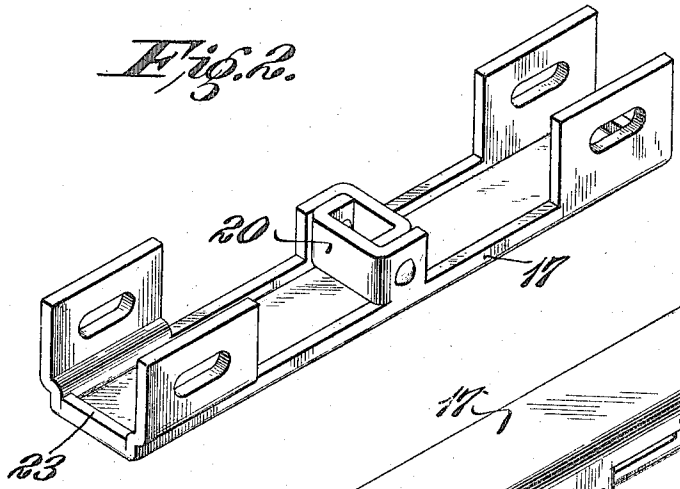
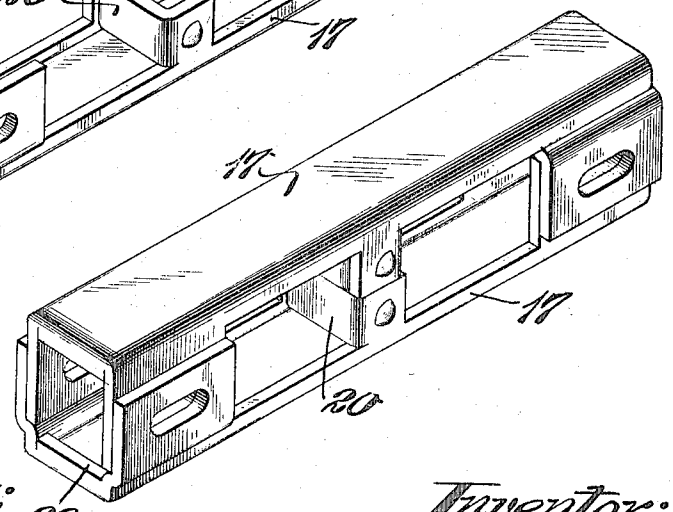


Fig. 3.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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DRAW-BAR YOKE.

1,216,430. Specification of Letters Patent. **Patented Feb. 20, 1917.**

Original application filed July 6, 1915, Serial No. 38,249. Divided and this application filed May 26, 1916. Serial No. 100,002.

To all whom it may concern:

Be it known that I, WILLIAM D. FORSYTH, a citizen of the United States, and a resident of the city of Youngstown, in the county of Mahoning and State of Ohio, have invented a new and useful Improvement in Draw-Bar Yokes, of which the following is a specification.

This is a division of the invention described in my original application filed July 6, 1915, Serial No. 38,249, and it relates to draft gear casings or yokes for connecting the draw bar and the springs and followers of the draft gear of railway cars.

The object of the invention is the production of a light, strong yoke from pressed steel by an inexpensive process, and the invention consists in a suitable form of blank and in the fabrication thereof whereby such a yoke may be made in two interchangeable halves.

Further objects of the invention appear in connection with the following description of the form of blank shown in the accompanying drawings, and in the fabrication thereof into a half of a draw bar yoke; and what the invention consists in is more particularly defined in the appended claims.

In the drawings, wherein the same reference characters are used to designate like parts in the several views,

Figure 1 is a plan of a sheet metal blank suitable for the purposes of the invention;

Fig. 2 is a perspective view of a half draw bar yoke made from the blank shown in Fig. 1; and

Fig. 3 is a perspective view of two such half draw bar yokes assembled to form a complete yoke ready for the draft rigging.

The complete yoke (shown in Fig. 3) is made in two sections 17 which are counterparts of each other. Each of the sections 17 (shown in Fig. 2) is forged or pressed from a "blank" or metal plate which is sheared or punched from sheet steel to the shape shown in Fig. 1. The blank consists of a straight middle portion having pairs of oppositely disposed wings 18 at each end, each of which wings is punched with a slot 19 parallel to the center line of the blank. The slots 19 are arranged in pairs on opposite sides of the center line of the blank, the slots in each pair being equidistant from the center line of the blank. The wings 18 of each pair are bent at right angles to the plane of the blank and parallel to each other, with the slots 19 in alinement, forming side walls at the ends of the yoke. One pair of wings is bent along lines which are wider apart than the lines upon which the other pair are bent so that the wider spaced pair of wings straddle the closer spaced pair of wings of the mating half section 17 in assembled position. Across the middle of each section 17 is an abutment 20 half as high as the side walls 18 formed by bending up the side tongues 21 at right angles to the plane of the blank and bending their extremities across the blank and riveting them together, as shown in Fig. 2.

The two mating half sections 17 are assembled one inverted above the other, with the wider spaced wings or walls on one section embracing the narrower spaced wings or walls on the other section and the slots 19 at each end of the sections in alinement. The abutments 20 of the two sections meet at their tips and together form a stiff cross wall at the middle of the yoke. The two sections 17 are held together by pins through the alining slots 19 in the side walls. The ends of the sections 17 have narrow flanges 23 turned up between the side walls 18. The front end of the yoke incloses the tail end of the draw bar, and the draw bar may be easily detached by merely taking out the front pin which holds the yoke together and lifting the top half of the yoke.

The two sections of the yoke member are arranged parallel to each other and the draft springs are compressed and with the followers are assembled in the space within the yoke with the followers projecting through the opening in the side walls. The assembled yoke members and draft gear are placed between the draft sills, with the front ends of the sections separated enough to permit the tail end of the draw bar to be slipped endwise between the end flanges of the sections, whereupon the latter are brought together and the assembled parts are secured in place between the draft sills by passing the pins 22 through the sills and yoke sections.

The invention is not restricted to the forms and arrangements of the parts as shown and described.

I claim the following as my invention:

1. A blank for one-half of a draw bar yoke composed of two interchangeable halves, said blank having two oppositely disposed tongues, one on each side of its middle, said tongues extending lengthwise of the blank and in opposite directions whereby they may be bent across the blank and the end of one secured to the base of the other.

2. A blank for one-half of a draw bar yoke composed of two interchangeable halves, said blank having end wings adapted to be bent up to form side walls, and two oppositely disposed tongues, one on each side of its middle, said tongues extending lengthwise of the blank and in opposite directions whereby they may be bent across the blank and the end of one secured to the base of the other, said tongues being about one-half as wide as the height of said end walls.

3. A blank for a draw bar yoke comprising a middle portion having oppositely disposed wings at its ends, each pair of oppositely disposed wings having parallel slots at equal distances from the center line of the blank.

4. A blank for a draw bar yoke comprising a middle portion having oppositely disposed wings at its ends, each pair of oppositely disposed wings having parallel slots at equal distances from the center line of the blank, the slots of one pair of wings being spaced farther from the center line of the blank than the slots of the corresponding pair of wings at the other end of the blank.

5. The process of making draw bar yokes which includes forming two similar blanks, one for the top of the yoke and one for the bottom of the yoke, each of said blanks comprising a middle portion having oppositely disposed perforated wings at its ends, bending up said wings along parallel lines such that one pair of wings has sufficient space between them to straddle the other pair of wings of the other blank, inverting one blank and fitting its wings over the wings of the under blank at one end and between the wings of the under blank at the opposite end, and pinning said blanks together by means extending through the perforations of said wings.

6. The process of making draw bar yokes which includes forming two similar blanks, one for the top of the yoke and one for the bottom of the yoke, each of said blanks comprising a middle portion having oppositely disposed tongues at its middle and oppositely disposed wings at its ends, bending said tongues across the blank to form abutments and bending up said wings along parallel lines such that one pair of wings has sufficient space between them to straddle the other pair of wings of the other blank, inverting one blank and fitting its wings over the wings of the under blank at one end and between the wings of the under blank at the opposite end to bring said abutments together, and securing said blanks together.

Signed at Youngstown, Ohio, this 22 day of May, 1916.

WILLIAM D. FORSYTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."