Nov. 5, 1929. A. G. WELCH 1,734,356

METAL BLANK FOR SIDE BEARINGS

Filed Aug. 16, 1926. 2 Sheets-Sheet 1

Fig. 1

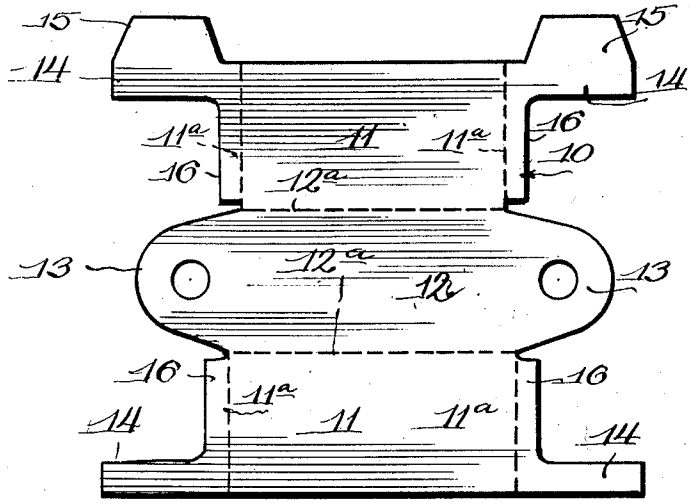


Fig. 2

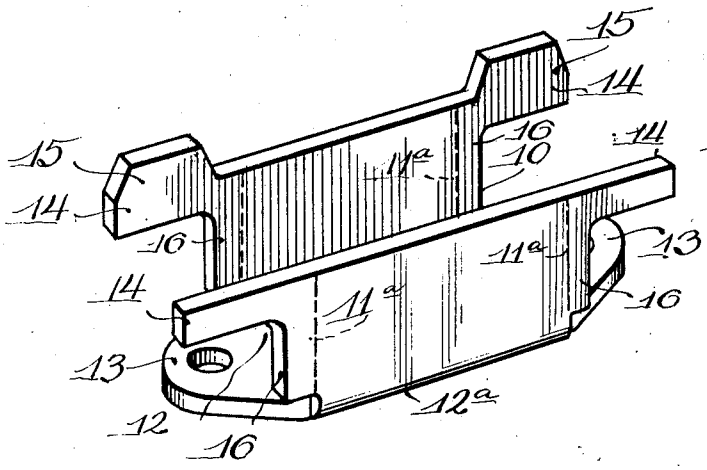
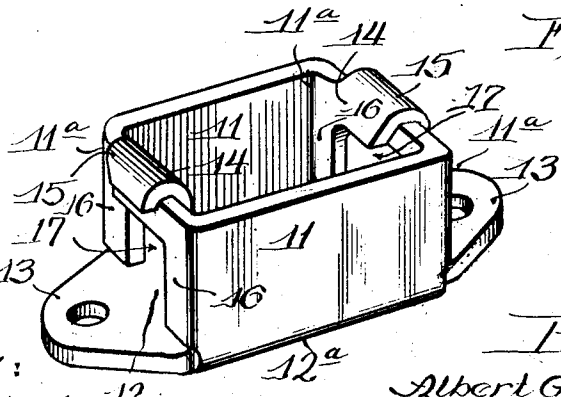


Fig. 3



Witness:
Chas. R. Knust.

Inventor,
Albert G. Welch.
Clarence E. Mehlhope
Attys.

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METAL BLANK FOR SIDE BEARINGS

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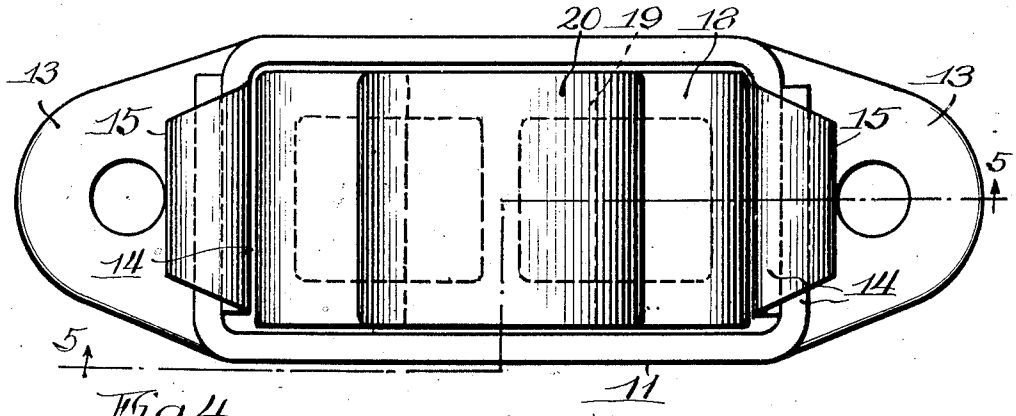


Fig. 4

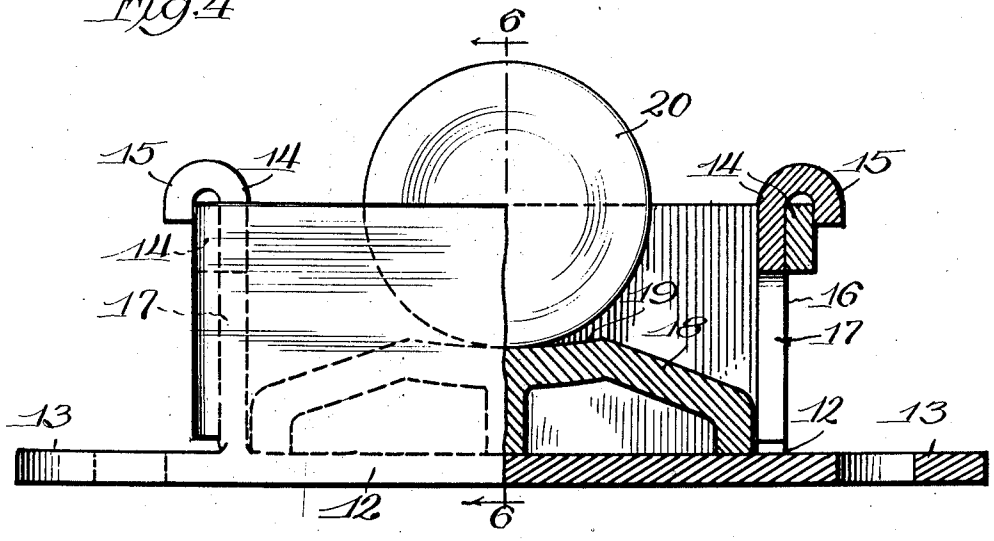


Fig. 5

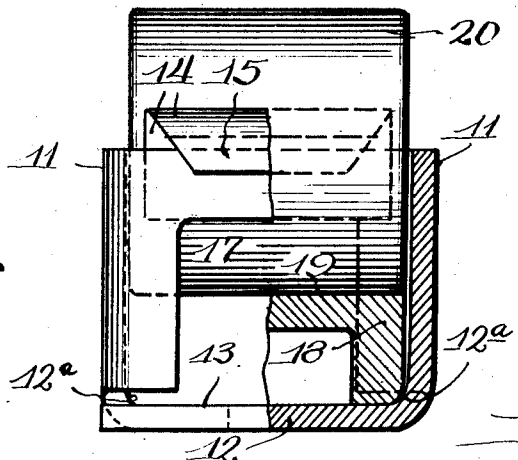


Fig. 6

Witness:
Chas. L. Kousek.

Inventor,
Albert G. Welch,
Clarence E. Wallace
Atty.

Patented Nov. 5, 1929 1,734,356

UNITED STATES PATENT OFFICE

ALBERT G. WELCH, OF CHICAGO, ILLINOIS, ASSIGNOR TO SOPHIE L. WOODS, OF CHICAGO, ILLINOIS

METAL BLANK FOR SIDE BEARINGS

Application filed August 16, 1926. Serial No. 129,370.

This invention relates to improvements in metal blanks for side bearings for railway cars and consists of the matters hereinafter described and more particularly pointed out in the appended claims.

The object of the invention is to provide a blank, which is stamped or cut from a sheet of metal in such way that it may be bent to assume the form of a finished casing, without the use of rivets, bolts or like fastening devices. The several advantages of my invention will appear more clearly as I proceed with my specification.

In the drawings—

Figure 1 is a top plan view of the novel blank from which the improved side bearing casing is made.

Figure 2 is a perspective view illustrating the blank in the first stage of the bending process by which it is brought to form.

Figure 3 is a perspective view of the casing as it appears when finished and ready to receive the anti-friction roller and wear plate.

Figure 4 is a top plan view on an enlarged scale of the side bearing with the anti-friction roller and wear plate in position therein.

Figure 5 is a longitudinal section through Figure 4 in a plane indicated by the line 5—5 thereof.

Figure 6 is a view representing a transverse section through the side bearing in a plane indicated by the line 6—6 in Figure 5.

Referring now to that embodiment of my invention illustrated in the drawings which is in the form of a truck bolster bearing: 10 indicates the novel blank from which the improved side bearing casing is made. Said blank is cut from a flat sheet of metal and comprises side wings 11, 11 and an intermediate base member 12. The base member 12 extends at each end beyond the wings 11 to provide apertured extensions 13, 13 to receive the bolts or rivets by means of which the side bearing when finished is attached to the truck bolster to which it is applied. The wings 11, 11 each have extensions, respectively, 14, 14, and one pair of said extensions on the one wing have lateral tongue extensions 15, 15.

With a blank thus formed, the casing is bent to shape as follows: The two wings 11, 11 are bent up at right angles to the base member 12 approximately on lines 12^a, 12^a which define the base and separate it from the wings. This produces the result shown in Figure 2. The extensions 14, 14 are then bent at right angles to their respective wings along lines 11^a, 11^a which define short flange-parts 16, 16 of the wings which project beyond the lines 12^a defining the longitudinal limits of the base member 12 of the blank and which are severed from said base member, as clearly illustrated in Fig. 1. When the blank is thus bent to form, the bottom ends of the flange-parts 16 engage and bear upon the said base member, as shown in Fig. 3. In thus bending the extensions of the wings, the extensions having the tongue extensions 15, 15 are preferably placed within the plane of the extensions of the other wing, as shown in Figure 3, and are then bent outwardly and downwardly to embrace the extensions of the other wing as therein shown. The tongue extensions 15, 15 thus provide a locking member rigidly to lock the extensions 14, 14 of the two wings together to form the end walls of the casing, said end walls being each made up of the flange extensions 16, 16 and the extensions 14, 14 of the said wings.

When the blank is thus bent into shape and the tongue extension 15, 15 clinched rigidly to embrace the associated extensions 14, 14, a strong rigid casing, capable of withstanding the shocks and jars of an anti-friction roller when moving therein, is produced. It will be noted that a space 17 separates the adjacent edges of the flanges 16, thereby providing the usual opening for the escape of cinders, dust and dirt from the bearing.

In the casing resting on the bottom 12 thereof is located a combination wear plate and filler block 18, which may be forged, cast or produced in any other familiar manner. Said block as shown is provided on its upper face with a depressed wear surface 19 inclined downwardly from each end toward the transverse median line of the casing in order to center a roller 20 which is mounted on said wear plate in a familiar manner. The roller in this case has no trunnions and is retained in the casing by gravity.

It will be manifest that from the improved blank an open top casing with bottom, side and end walls is produced without the necessity of the use of any bolts or rivets to retain the parts of the casing in set up finished form.

I claim as my invention:

1. A sheet metal blank for a side bearing casing, said blank consisting of a base part and of wing parts at the sides of said base part and said wing parts having end extensions which are are severed from said base part, said wing parts being adapted to be bent up to form the side walls of the casing and the end extensions of said wing parts being adapted to be bent at right angles to said wing parts into overlapping relation to provide end walls for said casing.

2. A sheet metal blank for a side bearing casing, said blank consisting of a base part and of wing parts at the sides of said base part, said wing parts having end extensions at their free margins and narrower flange extensions between said margins and the base part, said flange extensions being severed from said base part said wing parts being adapted to be bent up to form the side walls of the casing and the end extensions of said wing parts being adapted to be bent at right angles to said wing parts into overlapping relation to provide apertured end walls for said casing.

3. A sheet metal blank for a side bearing casing, said blank consisting of a base part and of wing parts at the sides of said base part, said base part having apertured end extensions and said wing parts having end extensions at their free margins and narrower flange extensions between said margins and the base part, the wider extensions of one of said wing parts having lateral tongue extensions, said wing parts being adapted to be bent up to form the side walls of the casing, the end extensions of said wing parts being adapted to be bent at right angles to said wing parts into overlapping relation to provide end walls for said casing with the extensions of said base part projecting beyond the end walls, and the lateral tongue extensions on the wider extensions of one wing part being adapted to be bent down to embrace the like extensions of the other wing part to lock the parts of the blank into rigid casing form.

In testimony that I claim the foregoing as my invention, I affix my signature this 7th day of August, A. D. 1926.

ALBERT G. WELCH.