F. W. SARGENT.

BACK FOR BRAKE SHOES.

APPLICATION FILED DEC. 19, 1907.

907,892.

Patented Dec. 29, 1908.

Fig. 1.

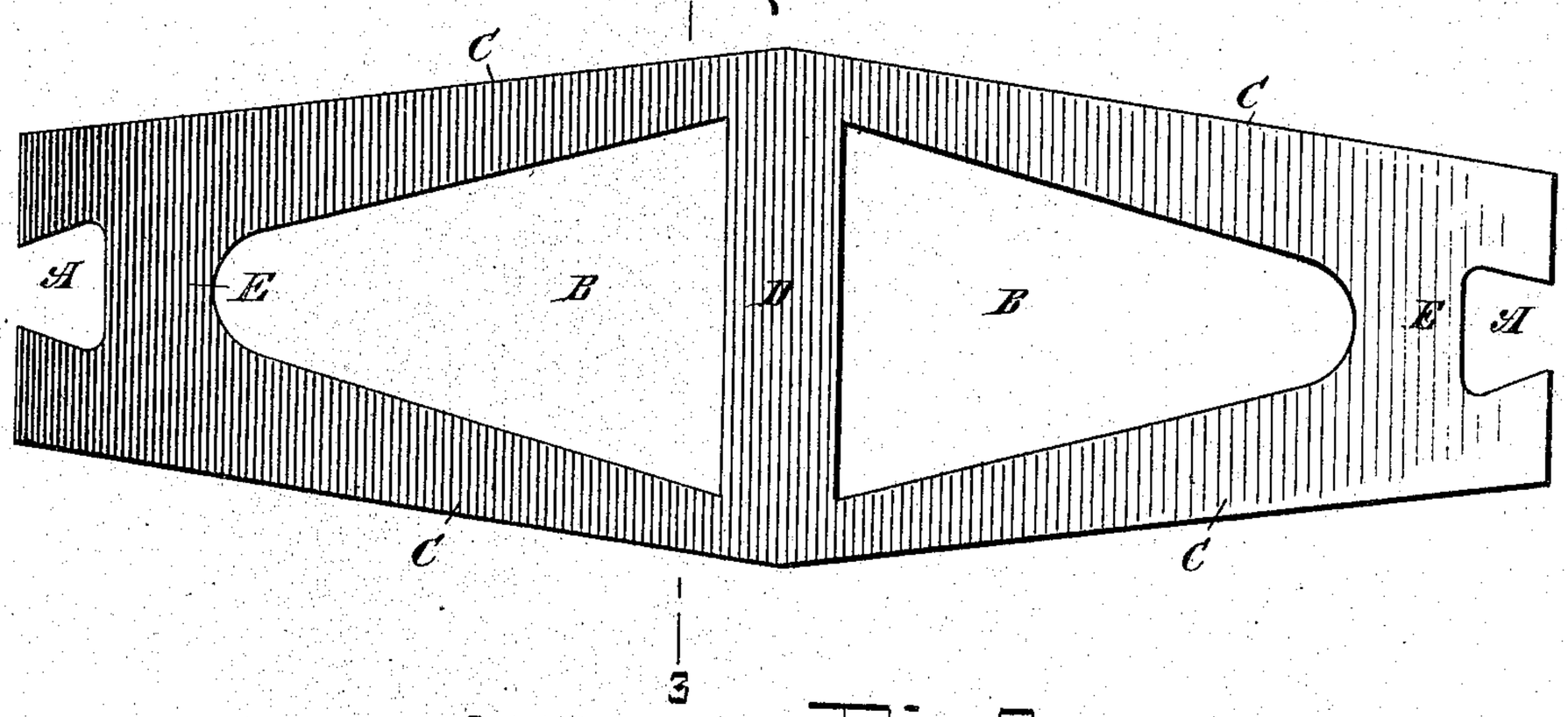


Fig. 2.

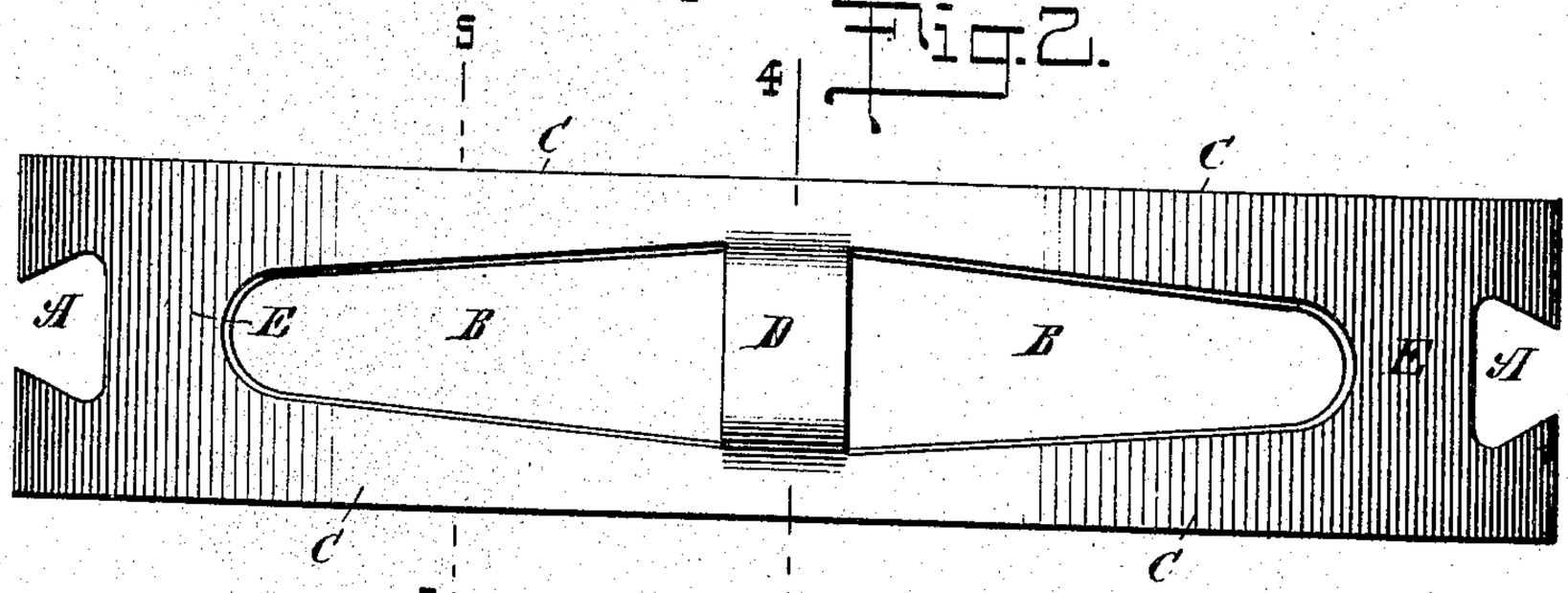


Fig. 3.

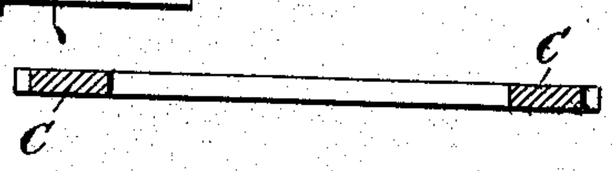


Fig. 4.

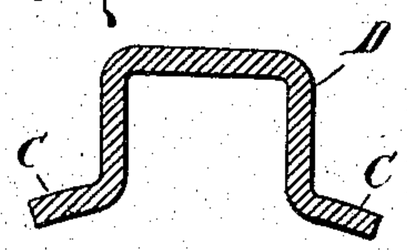
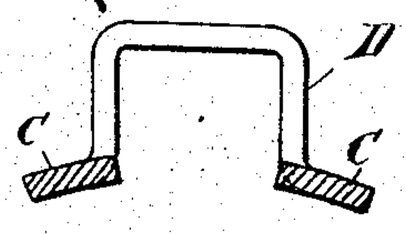


Fig. 5.



WITNESSES

M. Van Nortwick

John B. White.

Fitz W. Sargent INVENTOR

BY George Cook

ATTORNEY

UNITED STATES PATENT OFFICE.

FITZ W. SARGENT, OF MAHWAH, NEW JERSEY, ASSIGNOR TO EDWARD H. FALLOWS, OF NEW YORK, N. Y.

BACK FOR BRAKE-SHOES.

No. 907,892. Specification of Letters Patent. Patented Dec. 29, 1908.

Application filed December 19, 1907. Serial No. 407,145.

To all whom it may concern:

Be it known that I, FITZ W. SARGENT, a citizen of the United States, and a resident of Mahwah, in the county of Bergen and State of New Jersey, have made and invented certain new and useful Improvements in Backs for Brake-Shoes, of which the following is a specification.

My invention relates to an improved steel back for use in brake shoes, and the method of making the same, such as are adapted for use upon the wheels of railway cars, and is more particularly adapted for use with the type of shoe known as the "M. C. B. Christie unflanged brake shoe."

The object of my invention is to form a steel back with an integral attaching lug, and with integral transverse binding portions at each end thereof, thereby securing great strength and also providing for a firm anchorage between the back and the body of the shoe.

With this and other ends in view, the invention consists in certain novel features of construction, as will be hereinafter fully described and specifically pointed out in the claims.

In the accompanying drawings Figure 1 is a top plan view of the blank for my improved steel back, after being punched out before receiving its final shape. Fig. 2 is a similar view of the back after being shaped. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1. Fig. 4 is a sectional view taken through the key-lug, and on the line 4—4 of Fig. 2. Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2.

In carrying out my invention, I employ a strip of mild steel, wrought or other tough metal, preferably about three-sixteenths of an inch thick, the ends of which plate in width are approximately the width of the shoe to which the back is to be attached, the plate increasing in width from each end toward the center of its length. The extreme ends of the plate are cut out as illustrated at A, these dove-tailed notches assisting in forming a lock for the body metal at what is known as the end stop and brake head guide.

At either side of the center of the plate I form the wedge-shaped openings B, thereby forming the two strips or straps of metal C and the transverse strip or strap D, the latter in width being substantially equal to that of the attaching lug into which it is subsequently formed. By the formation of these openings B are also secured the transverse strips E, E, which bind and hold in place the ends of the strips C, it being understood that the blank thus formed has no cut or opening extending entirely through it, either crosswise or lengthwise. The width of the plate, or in other words, the length of the cross strip or strap D, is sufficient to allow side strip to be bent or struck upwardly into the shape of an attaching lug, this operation drawing inwardly or towards each other, the central portions of the strips or straps C, thereby causing the skeleton back to assume an equal or uniform width throughout its length, the central portion thereof being pulled in by the bending of the strap D until it equals in width the width of the ends. This skeleton back is also given a slight transverse curve, as illustrated in Fig. 5, this bending or shaping tending to slightly open the cut-outs and giving to the edges of the several openings a bevel which serves to hold the body or cast metal to it, and permitting the edges of the back to be completely embedded or submerged in the cast metal of the body.

In order to economize the metal of the steel back, I preferably make the loop or lug of such a size as to inclose what is known as the M. C. B. Christie standard core, that is, the loop D will be of such dimensions as to just encircle the core placed in the hole to form the key-way, the cast metal of the body flowing around and over the lug to the proper dimensions. If desired, however, a wider plate may be employed, in order that the transverse strip or strap D may be of such length as to have the outside dimensions of the M. C. B. Christie lug, in which instance, of course, the cast iron would be allowed to flow beneath it about the core.

From the above description it will be seen that I have provided a skeleton steel back of great strength, the key-lug being formed integral therewith, the ends being held or bound together by integral transverse strips. The openings formed therein, having beveled edges by reason of the transverse curvature of the back, the cast metal of the body of the shoe to which it is to be attached, securely and firmly anchors the back in place, avoiding all danger of its becoming detached from the body of the shoe should the latter become cracked or broken.

Having fully described my invention, what

I claim as new and desire to secure by Letters Patent, is:—

1. A back for a brake shoe consisting of two side strips connected at their ends by transverse strips, and a key-lug connecting the inner edges of said strips at their centers, substantially as described.

2. A back for a brake shoe consisting of two side strips connected at their ends and center by transverse strips, the back being transversely curved, substantially as described.

3. A back for a brake shoe formed of a single plate; the longitudinal edges of which diverge toward the center, said plate having openings formed therein on either side of the center, whereby are formed transverse strips connecting the ends and center of the side strips, substantially as described.

4. A back for a brake shoe consisting of side strips connected at their ends and center by transverse strips, the central transverse strip being formed into a key-lug, said back having a longitudinal and transverse curvature, substantially as described.

5. The herein described method of forming a back for a brake shoe, which consists in forming the skeleton diamond-shaped blank, then drawing in the central portions of the side strips whereby the sides will become parallel, and forming a key-lug from the central transverse connecting strip.

6. The herein described method of forming a back for a brake shoe, which consists in forming the skeleton back having side strips connected by short transverse connecting strips and the center by a longer transverse connecting strip, then drawing in the central portions of the side strips towards one another and forming a key-lug from the said longer central transverse connecting strip whereby said strips become parallel.

Signed at Mahwah in the county of Bergen and State of New Jersey this 14th day of Dec. A. D. 1907.

FITZ W. SARGENT.

Witnesses:
C. F. Herlihy,
R. L. Lewis.