

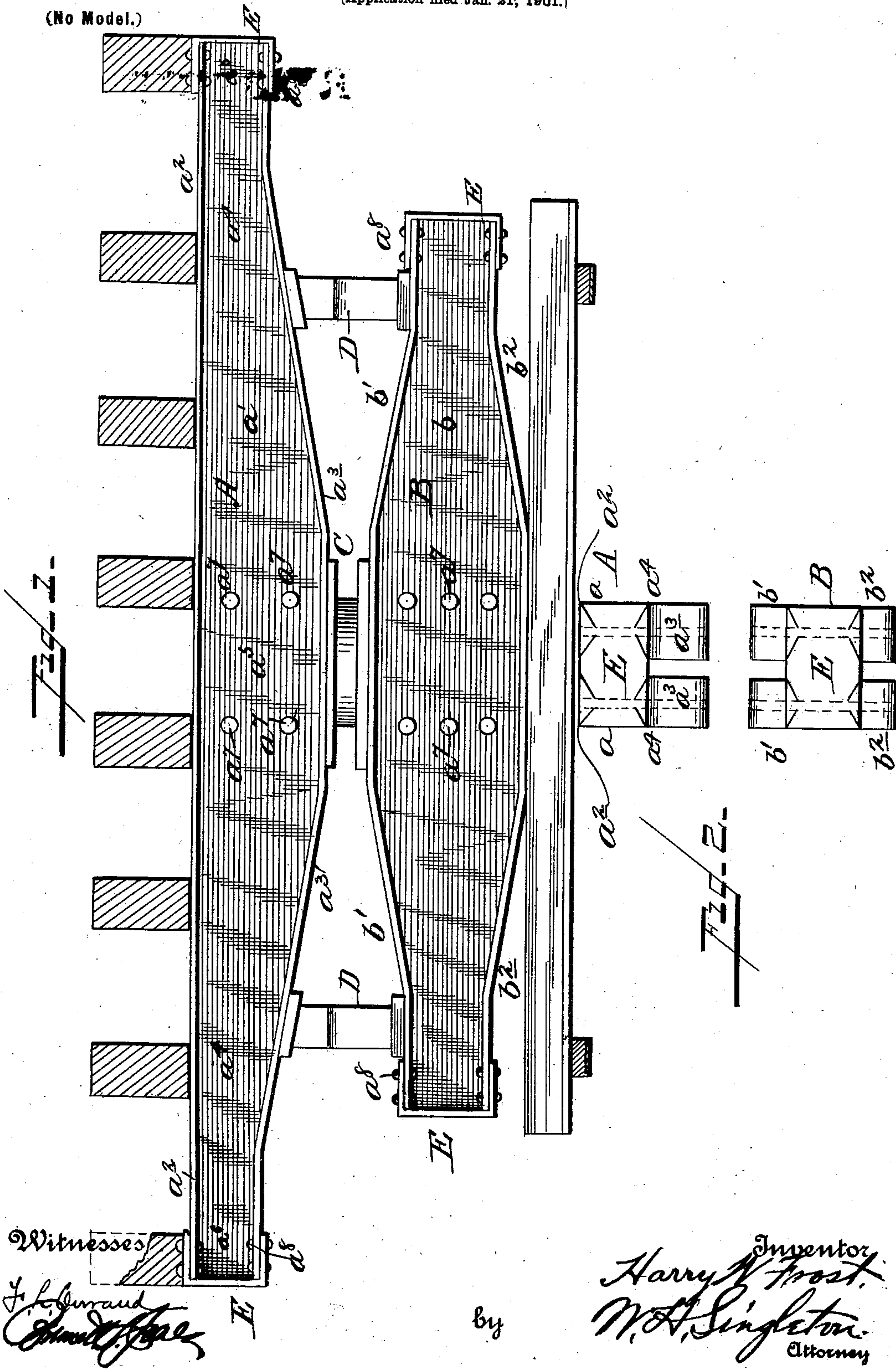
No. 697,466.

Patented Apr. 15, 1902.

H. W. FROST.
RAILWAY CAR BOLSTER.

(Application filed Jan. 21, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

HARRY W. FROST, OF DETROIT, MICHIGAN.

RAILWAY-CAR BOLSTER.

SPECIFICATION forming part of Letters Patent No. 697,466, dated April 15, 1902.

Application filed January 21, 1901. Serial No. 43,961. (No model.)

To all whom it may concern:

Be it known that I, HARRY W. FROST, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Railway-Car Bolsters, of which the following is a specification.

My invention relates to improvements in railway-car bolsters of that kind in which the ends of the bolsters are smaller in cross-section than the main portion of the bolsters in which the ends taper away from the main or body portion of the bolster.

The invention consists in the construction hereinafter set forth in the claims.

In the drawings, Figure 1 represents a side view of a body-bolster and a truck-bolster of a car provided with my invention. Fig. 2 represents an end view of the two bolsters, such as shown in Fig. 1.

In the drawings the letters A B represent a body and truck bolster containing my invention and shown in Fig. 1 in the usual relation to each other. Between these two bolsters are located, as shown in the drawings, the usual center bearing C and side bearings D D. My invention as applied to these two bolsters is substantially the same, with such difference in the construction of the two bolsters as will be hereinafter pointed out. The bolster A consists of two twin pieces a a . These twin pieces a a consist of a I-beam having the usual web a^1 , the top flange a^2 , and the bottom flange a^3 . Each piece a is formed by reducing the end portions a^4 , as shown in Fig. 1, making them smaller in cross-section than the main or body portion a^5 of the beam a . This reduction of the ends a^4 is done by the metal of the beam a being upset or compressed or reduced in width, so that while there is the same amount of metal in the beam after the compression is finished the reduced ends, though smaller than the body portion, have the cross-area of the metal substantially the same as that of the body portion, so that after compression there is still the same amount of metal in the beam as before. The bolster A is formed by properly bolting transversely together two of these

reduced beams a , some of the bolts being indicated at a^7 , and then securing to the ends a^6 of the beams a cap-pieces E, which are properly bolted to the ends a^6 a^6 of the beams a a by bolts a^8 .

The truck-bolster B is made in substantially the same way as the body-bolster A, except that, as shown in Fig. 1 of the drawings, the body-bolster A is so manipulated or reduced that its top edge is straight, while only its bottom edge has the taper from the middle toward the ends, while the truck-bolster B not only has its ends b reduced or tapered on top, as shown in Fig. 1, but also may have them reduced or tapered at the bottom, as shown in this figure.

With the construction thus described there is not only produced a bolster which may be used in car construction with the usual appliances for supporting the car-body and sustaining the load, but the special form of bolster herein set forth possesses advantages not to be found in any prior construction.

While the bolster herein described has the ends tapered, such as have been in use for some time, the special construction herein set forth gives to the bolster, and especially its tapered ends, strength and efficiency not hitherto to be found, by reducing the ends of the bolster in the manner described, so that while the ends of the bolster are made smaller than the body portion, thus providing for the ordinary use of the bolster, still, there is no change in the amount of metal but the metal is compressed and the cross-section of the ends of the bolster is greater. For their size the reduced ends of this bolster are stronger and better adapted for supporting weight and resisting strain than any other bolster hitherto known.

It is obvious that if an I-beam be made large enough the bolster might consist of one beam only instead of two.

Having described my invention, what I claim is—

1. A railway-car bolster having its ends tapered on top and bottom, the metal of such ends being reduced whereby the same amount of metal is retained on the ends, but the

cross-section is substantially the same as that of the body portion.

2. A railway-car bolster having its ends tapered on top and bottom, in combination
5 with another superposed bolster having its end tapered on the bottom, the metal of such ends being reduced whereby the same amount

of metal is retained on the ends, but the cross-section is substantially the same as that of the body portion.

HARRY W. FROST.

Witnesses:

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