

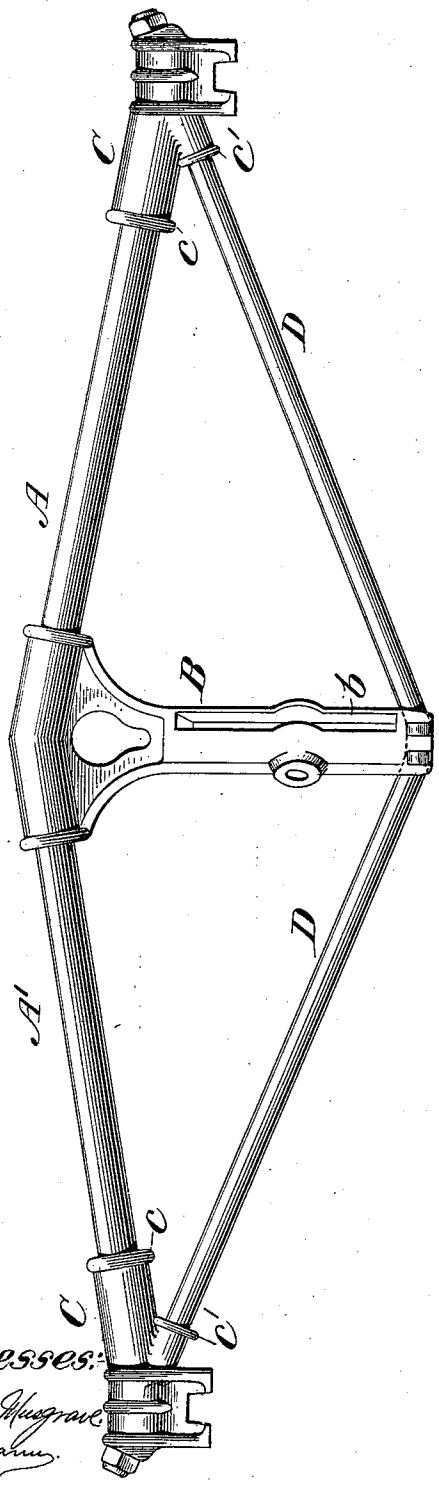
(No Model.)

L. R. POMEROY.  
BRAKE BEAM.

No. 577,929.

Patented Mar. 2, 1897.

Fig. 1.



Witnesses:  
*Edward J. Huggins*  
*Adney Mahan*

Fig. 3.

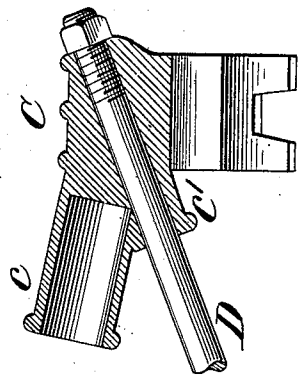
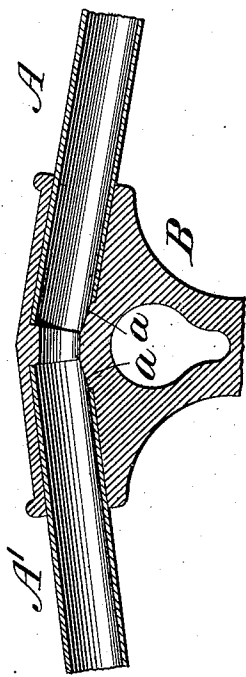


Fig. 2.



Inventor:  
*Lewis A. Pomeroy*  
by his attorney  
*Nicholas McGoodlett Jr*

# UNITED STATES PATENT OFFICE.

LEWIS R. POMEROY, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO  
FRANK W. COOLBAUGH, OF SAME PLACE.

## BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 577,929, dated March 2, 1897.

Application filed March 15, 1895. Serial No. 541,859. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS R. POMEROY, a citizen of the United States, and a resident of East Orange, Essex county, State of New Jersey, have invented a certain new and useful Improvement in Brake-Beams, of which the following is a specification.

This invention relates to brake-beams especially adapted for use on railway-cars, and has for its object to provide a cambered brake-beam simple and efficient and one in which some of its parts are easily replaceable.

The invention consists of the construction hereinafter set forth.

In the drawings, in which like letters of reference designate corresponding parts in all the views, Figure 1 is a plan view of a brake-beam embodying my invention. Fig. 2 is a central vertical section through the head of the strut, and Fig. 3 is a similar section through an end socket-piece.

Heretofore brake-beams in general have been constructed with the compression member made in one piece, and in some cases this compression member has been cambered. A fracture in any part of the compression member rendered the entire piece useless, and the brake remained inoperative until the car could be sent to the shop. These compression members, moreover, were necessarily quite heavy, and in time their camber was liable to become set, so that the resilience of the member was lost. When the brakes were applied, the greatest stress was applied to the middle of the member (naturally its weakest point) and in a direction at right angles to its length, and therefore tending to fracture, buckle, or break the member at this point. It has been sought to overcome these defects by providing a brake-beam having its compression member made in two parts, the inner ends of which are received in sockets in the head of a T-shaped strut, the camber being produced by disposing the two parts of the compression member at acute angles to the strut. In this case, however, the tension member was a straight piece passing through the strut, and when the brakes were applied there was a tendency to shear or buckle the tension member at the middle, (naturally its weakest point,) where it passed through the

strut, the stress on the brake-shoes being in a direction at right angles to the tension member. Moreover, in this case the brake-lever was attached to the end of the strut in advance of the tension member, and therefore there was less room between the peripheries of the wheels and the truck-bolster than was sometimes required in hanging the brake-beam between the rear and forward wheels of a truck. In this old device there was also a want of proper balance and a tendency of the compression member to sag down, thus bringing the heels of the brake-shoes first into contact with the wheels when the brakes were applied. In accordance with this invention, however, the defects of both these forms of brake-beams are obviated.

Referring now to the drawings, A A' are two short pieces, preferably of iron tubing, forming the compression member. Their inner ends are received in sockets *b b'*, provided in the head of the T-shaped strut B, and are preferably so arranged with respect to the sockets that they cannot turn therein. This may be done by bending in or cutting away a portion of the pieces A A' at their inner ends, so as to take over flattened portions of their sockets near the bottom, as shown at *a*, Fig. 2. The pieces A A' are disposed at acute angles with respect to the strut, so as to produce the necessary camber.

C C are the end socket-pieces, preferably made integral with the brake-heads, as shown. They are each provided with independent sockets *c* for one end of the compression member and *c'* for one end of the tension member D. The openings in the sockets *c* do not extend all the way through, but the openings in the sockets *c'* do extend all the way through and pass behind the sockets *c* and at an acute angle, and the angle of the sockets *c c'* is such that the compression and tension members do not intersect at their ends and there is no necessity of compressing or cutting away one to allow room for the other, and so weakening the parts. The tension member at its middle engages the strut B, and preferably the end thereof, and its two halves are disposed at acute angles with respect to the strut, the ends of the tension member passing through the sockets *c'* and being se-

cured in place, preferably, by nuts. The strut B is preferably provided between its ends with a slot *d* for the reception of the brake-lever. By this arrangement when the  
 5 brakes are applied the stress upon the tension member is in line with its longitudinal axis and therefore in the direction of greatest resistance, and there is no tendency to shear or buckle the tension member. Moreover,  
 10 the compression member, being in two parts and disposed at acute angles to the strut, cannot lose its camber, and in case of one part breaking another short piece of tubing, which can be easily carried in the car, may  
 15 be readily and immediately adjusted without sending the car to the shop. Again, the stress upon the parts of the compression member is in line with their longitudinal axes and in a direction tending to crush them,  
 20 which is a direction of stress to which there is greatest resistance. It will therefore be seen that by this construction the tension member and compression member are both so disposed as to offer their greatest resist-  
 25 ance to the stress arising when the brakes are applied, and that with this high degree of strength are combined simplicity and great facility of repair.

By attaching the brake-lever between the  
 30 ends of the strut or back toward the compression member more room is provided between the peripheries of the wheels and the truck-bolster, whereby the brake-beam may

be easily hung between the rear and front wheels of a truck, and the entire brake-beam 35 is satisfactorily balanced, there being no tendency of the compression member to sag.

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

In a brake-beam, the combination of a strut 40 provided with tubular sockets in the head and also provided with means for the attachment of the brake-lever, a compression member consisting of two separate tubular parts whose inner ends are received in said sock- 45 ets, a tension member engaging the strut at a point beyond the brake-lever attachment and having its two halves disposed at acute angles thereto, and brake-heads provided with socket-pieces integral therewith, the 50 socket-pieces having tubular sockets for the outer ends of the compression member and sockets for the ends of the tension member disposed at acute angles with respect to the said tubular sockets and passing through the 55 brake-heads behind the ends of the compression member so as not to intersect said compression member, substantially as and for the purpose set forth.

In testimony whereof I have signed my 60 name to this specification in the presence of two subscribing witnesses.

LEWIS R. POMEROY.

Witnesses:

NICHOLAS M. GOODLETT, Jr.,  
 EDITH J. GRISWOLD.