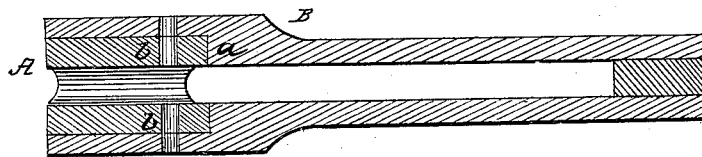


ROSS & ARTHUR.  
Car Bumper and Draw Head.

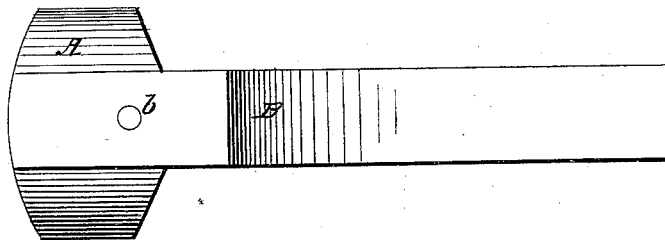
No. 109,347.

Patented Nov. 15, 1870.

*Fig. 1.*



*Fig. 2.*



Witnesses

*Harry King.*  
*C. L. Green.*

Inventor

*Alexander Ross*  
*John Arthur*  
*per Alexander Massey*

*Atty*

# UNITED STATES PATENT OFFICE.

ALEXANDER ROSS AND JOHN ARTHUR, OF FREEPORT, ILLINOIS.

## IMPROVEMENT IN RAILWAY-CAR BUMPERS AND DRAW-HEADS.

Specification forming part of Letters Patent No. **109,347**, dated November 15, 1870.

*To all whom it may concern:*

Be it known that we, ALEXANDER ROSS and JOHN ARTHUR, of Freeport, in the county of Stephenson, and in the State of Illinois, have invented certain new and useful Improvements in Bumper for Railroad-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a bumper for railroad-cars, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section, and Fig. 2 is a plan view, of our bumper and draw-bar.

A represents the head of the bumper, made of iron bent flatwise, so as to form the mouth of the bumper. B is the draw-bar, which is welded solid to the head A, so as to extend across the head both on the upper and lower sides, and at the same time form shoulders *a* a back of the head. These shoulders take the

strain off the bumper when knocked hard together, thereby preventing the breaking of the bumper.

The pin-hole *b* for the coupling-pin goes through the parts of the bumper-head and draw-bar where they are welded together. Thus the pin forms a great protection to both head and bar, as it pulls on two thicknesses of iron instead of one, holding all the parts together as long as coupled together.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The draw-bar B, constructed as described, so as to form the shoulders *a*, in combination with the bumper A, arranged as shown, so that its front end shall come flush with the front end of the draw-bar and its rear end come against the shoulders *a*, and the coupling-pin pass through both the draw-bar and bumper, all as herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 11th day of July, 1870.

ALEXANDER ROSS.  
JOHN ARTHUR.

Witnesses:

JAMES MARTIN,  
C. C. SHULER.