

I. R. TITUS & H. C. BOSSINGER.

CAR-BUMPER.

No. 182,493.

Patented Sept. 19, 1876.

Fig. 1.

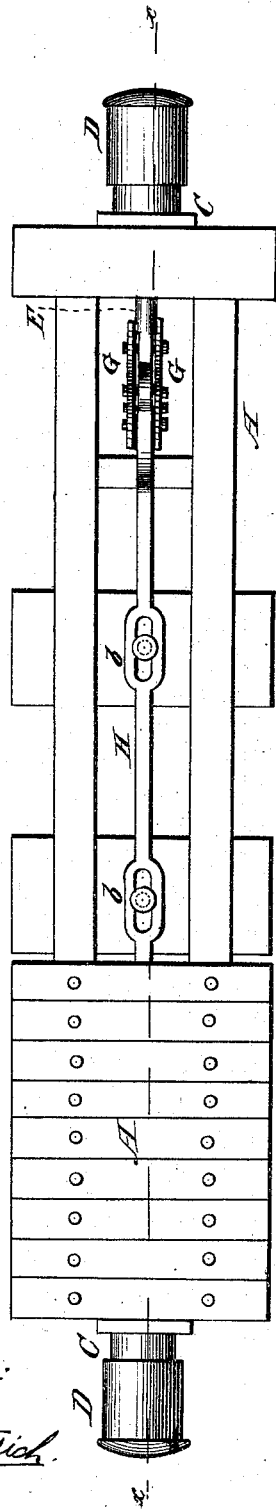
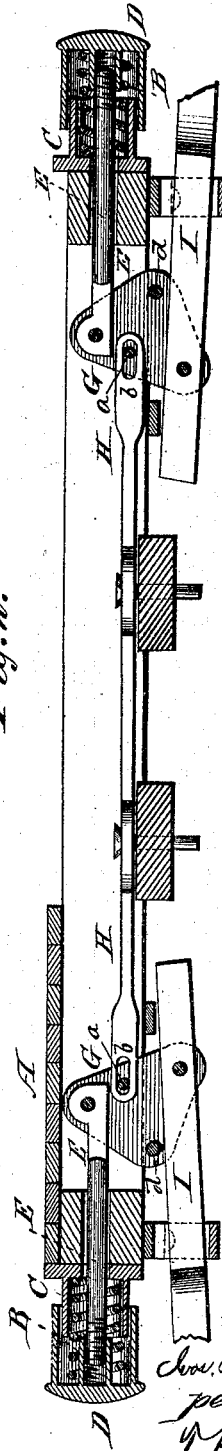


Fig. 2.



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IVOR R. TITUS AND HENRY C. BOSSINGER, OF HUNTINGTON, W. VA.

IMPROVEMENT IN CAR-BUMPERS.

Specification forming part of Letters Patent No. **182,493**, dated September 19, 1876; application filed December 13, 1875.

To all whom it may concern:

Be it known that we, IVOR R. TITUS and HENRY C. BOSSINGER, of Huntington, in the county of Cabell and State of West Virginia, have invented certain new and useful Improvements in Car-Bumpers; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of our invention consists in the construction and arrangement of a car-bumper, as will be hereinafter more 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 plan view; and Fig. 2 is a central vertical section on line *xx* of Fig. 1.

A represents part of the frame-work of a railroad-car. B is the bumper-spring, which is placed on the outside of the end sill of the frame A, in an iron chamber, C, forming the base of the buffer or bumper. D is the buffer-cap, sliding over the base C, and screwed, keyed, or otherwise fastened to the buffer-rod E, which passes through the spring, and connects at its inner end to two side plates, G G. To these plates is attached a rod, H, which runs to the opposite end of the car, and there connects with a precisely-similar device. The connection between the rod H and plates G G is by means of a pin, *a*, which works in a slot, *b*, in the rod, or in slots in the plates. This

slot is provided to allow the side plates to work back when the buffer-spring is compressed without bending the main rod H. The lower ends of the plates G are fastened to the stem of the draw-bar I, and a pin, *d*, passes through both plates, and rests on top of the draw-bar stem. When the buffer-spring is compressed, the draw-bar is by these means carried back so that it does not receive any buffing-strain.

When drawing a car, it will be noticed that the springs are compressed at both ends of the car by the action of the draw-bars, and we thus obtain a spring-buffer and an elastic draft with but two springs to a car.

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

1. The combination of the buffer-base C, spring B, cap D, connecting-rod E, plates G G, and draw-bar I, all constructed substantially as and for the purposes herein set forth.

2. The combination, with the plates G G and rod E at each end of a railroad-car, connecting the buffer and draw-bar, of the rod H, having its ends slotted and connected to the plates by a pin, *a*, passing through the slot, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

IVOR R. TITUS.
HENRY C. BOSSINGER.

Witnesses:

J. C. TANNER,
M. H. BROOKS.