

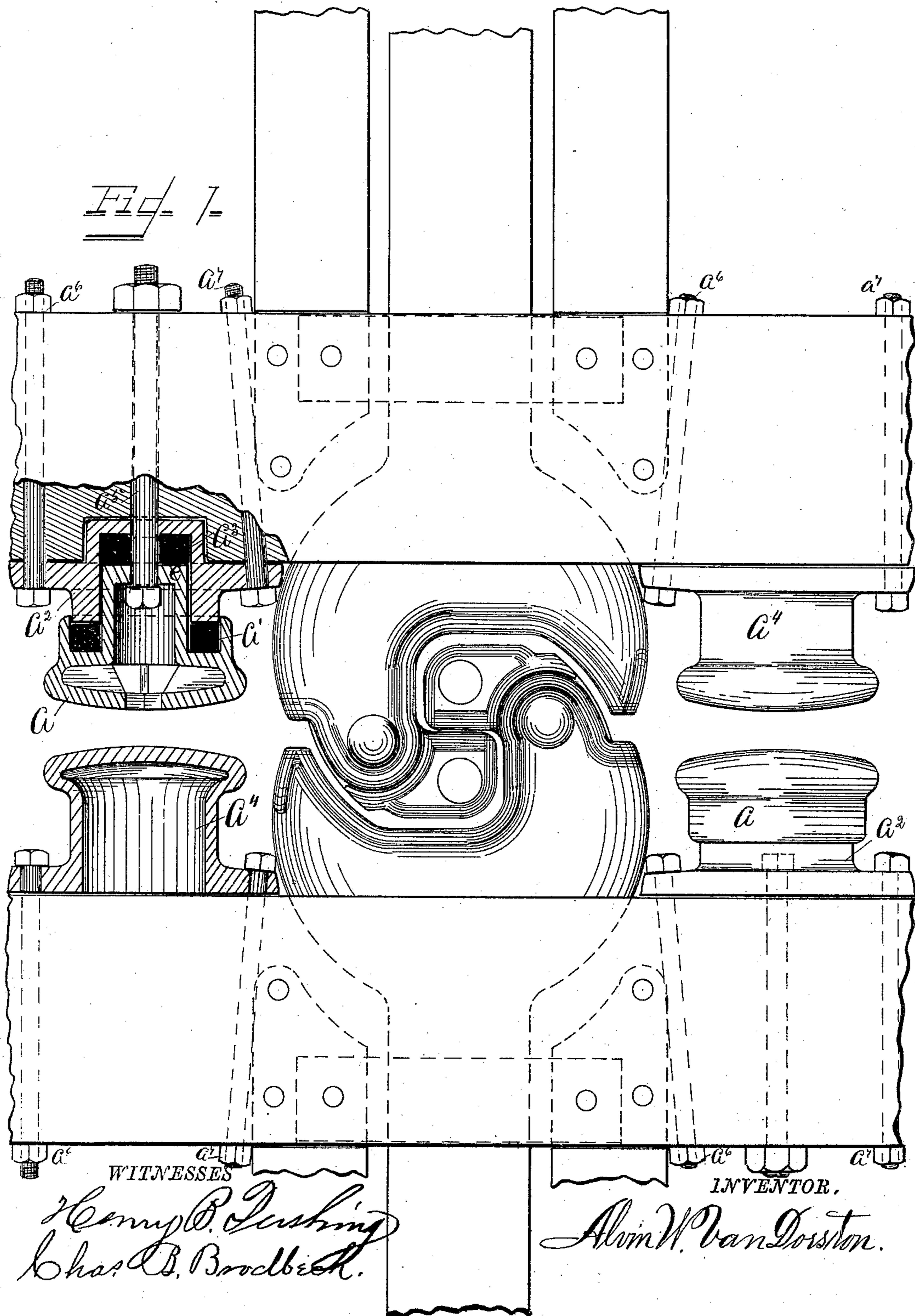
(No Model.)

A. W. VAN DORSTON.

CAR BUMPER.

No. 378,532.

Patented Feb. 28, 1888.



# UNITED STATES PATENT OFFICE.

ALVIN W. VAN DORSTON, OF SOUTH BEND, INDIANA.

## CAR-BUMPER.

SPECIFICATION forming part of Letters Patent No. 378,532, dated February 28, 1888.

Application filed June 30, 1887. Serial No. 242,930. (No model.)

*To all whom it may concern:*

Be it known that I, ALVIN W. VAN DORSTON, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Freight-Car Buffer-Blocks; and I do declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters and figures of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in freight-car buffers, wherein said buffers are secured to the front car-sills.

The object of my improved buffer is to provide a compact and elastic or yielding buffer by means of a piston operating against india-rubber rings.

In the accompanying drawing, the figure is a top plan view of the front car-sills provided with my improved buffers as they appear secured to said sills, the buffers located to the left-hand side of the drawing being represented in the section showing the different constructions of the rigid buffer and the cushioned buffer.

Referring to the drawing, similar letters of reference indicate like parts.

$a$  forms the piston to the frame  $a^2$ . In the bottom of said frame is located an india-rubber ring,  $a^3$ , and in the outer end of said piston is located the india-rubber rings or cushion  $a'$ . In this construction the piston  $e$  has an inner and outward bearing, which is entirely on india-rubber, forming an elastic buffer on the one side of the car, while the rigid

buffer  $a^4$  is located on the opposite sides, placed as rights and lefts. In this manner the cushioned buffer always comes in contact with the rigid one. By this means the rigid shocks to which cars are subject with the blocks termed "dead-woods" may be dispensed with, and damage to cars, stock, or freight of any kind will be greatly diminished.

In the construction of my improved buffer it will be seen that the frames  $a^2$  and rigid buffers are secured to the sill by means of the bolts  $a^6$   $a^7$ , and that the piston is secured in the frame  $a^2$  by means of the bolt  $a^5$ , which allows the piston to move back and forth when coming in contact with each other, thus protecting the cars, the couplers, and draw-gears.

Having fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. In a freight-car buffer, the combination of the frame  $a^2$ , the piston  $e$ , and head  $a$ , with the bolt  $a^5$ , substantially as shown, and for the purpose set forth.

2. In a freight-car buffer, the combination of the frame  $a^2$ , the piston  $e$ , and head  $a$ , with the india-rubber cushions  $a'$  and  $a^3$ , substantially as and for the purpose set forth.

3. In a car-buffer, the head  $a$  and piston  $e$ , having india-rubber cushion  $a'$ , in combination with the frame  $a^2$ , and cushion  $a^3$ , forming a reciprocating buffer to the rigid block  $a^4$ , substantially as described, and for the purpose set forth.

ALVIN W. VAN DORSTON.

Witnesses:

HENRY B. PERSHING,  
CHAS. B. BRODBECK.