

DANIEL SHABER.

Improvement in Draw Heads and Bumpers for Railroad Cars.

No. 115,986.

Patented June 13, 1871.

FIG. 1.

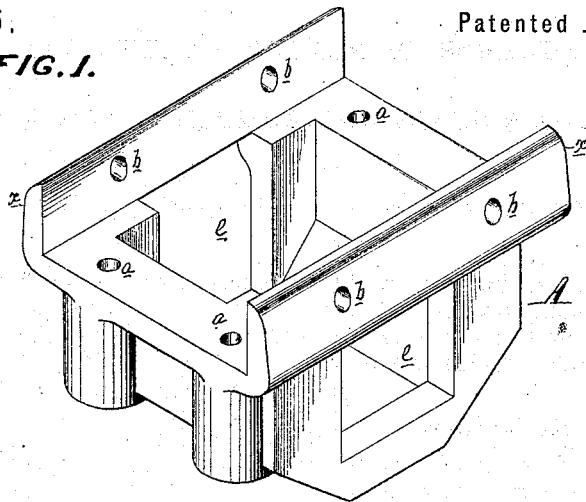


FIG. 2.

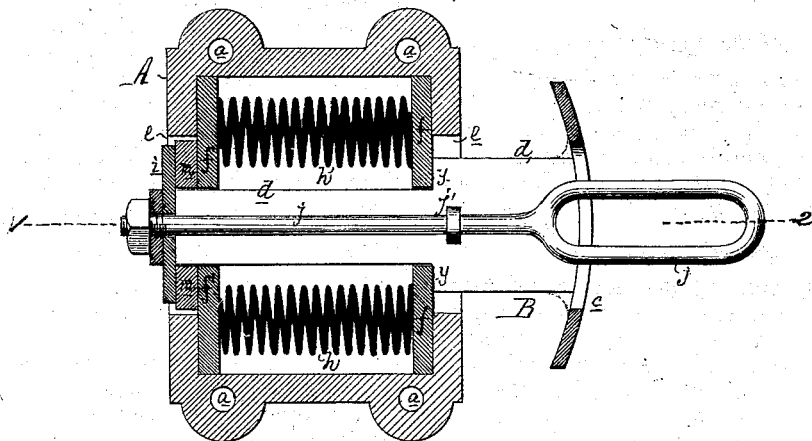
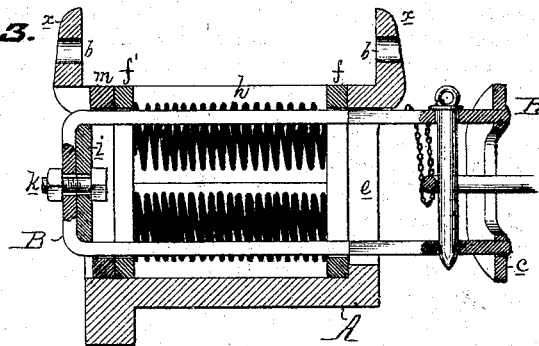


FIG. 3.



WITNESSES {

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UNITED STATES PATENT OFFICE.

DANIEL SHAABER, OF READING, PENNSYLVANIA.

IMPROVEMENT IN DRAW-HEADS AND BUMPERS FOR RAILROAD CARS.

Specification forming part of Letters Patent No. 115,986, dated June 13, 1871.

I, DANIEL SHAABER, of Reading, county of Berks, State of Pennsylvania, have invented an Improved Draw-Head and Bumper for Railroad Cars, of which the following is a specification:

Nature and Object of the Invention.

My invention consists of certain improvements, too fully described hereafter to need preliminary explanation, in draw-heads and bumpers for railway cars; my invention having been designed with the view of reducing the weight of material and cost of construction and increasing the efficiency of the device.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of the box or housing for the reception of the draw-head and springs; Fig. 2, a sectional plan view of the draw-head and housing; and Fig. 3, a sectional elevation on the line 1 2, Fig. 2, showing slight modifications.

General Description.

The spring-box or housing A, instead of being formed of cheek-pieces secured together and to the under side of the car, as usual, is cast in one piece, and is secured to the under side of the cross-sill at one end of the car by vertical bolts passing through holes *a a*, and by horizontal bolts passing through holes *b b*, formed in flanges *x x*, which embrace the opposite sides of the said cross-sill. The draw-head or bumper B has the usual curved face *c*, with its central opening, and strap *d*, to which the curved face is secured. The rear end of the strap *d* is of the usual width up to the points *y y*, where it is suddenly increased in width so as to form abrupt shoulders, and so as also to increase the support or backing for the curved face *c*, and thus enable the latter to better resist the shocks and strains imparted in bumping, &c. Openings *e e* are formed in the housing at opposite points for the reception of the strap of the draw-head, the abrupt shoulders *y y* of the latter bearing against a plate or washer, *f*, arranged to slide in the housing, and the said strap passing also through a similar plate or washer, *f'*, at

the opposite end of the housing. The spiral or other springs *h*, which act upon the draw-head, are arranged within the housing at either side of the said draw-head, and between the plates *f* and *f'*, as plainly shown in the drawing. The draw-head is retained in its position within the housing by its shoulders, *y y*, and by a key, *i*, which is inserted between the end of the strap *d* and the plate *f'*, and there held either by the stem of the link *j*, which passes through it and through the end of the strap, as shown in Fig. 2, or by a short bolt, *k*, arranged as shown in Fig. 3. A washer, *m*, is, in the present instance, introduced between the plate *f'* and key *i*; but this washer is not essential, and may be dispensed with.

In bumping, the blow received by the face *c* will be taken up by the springs *h*, as the shoulders *y y* of the draw-head will be forced back upon the plate *f*, which bears against the springs, and the said springs will also permit the draw-head to yield to any pulling force, the key *i* being in such case drawn against the sliding plate *f'*.

Draw-heads or bumpers are usually secured to one end of the draw-bolt, the opposite end of which passes through or is contained in the spring-box.

This arrangement occupies considerable room beneath the car, is difficult to detach when the springs have to be renewed, and is of greater weight and of lesser strength than in my improved arrangement, in which the draw-head itself is contained within the housing, and is so guided by the latter that it cannot well become deranged by heavy blows or in case of accidents to the cars. The housing also being cast in one piece, and constructed as before described, can be readily secured to or detached from the cross-sill when necessary.

The usual link and coupling-pin, seen in Fig. 3, may be used in connection with my invention, or links of the character shown in Fig. 2. Where the latter are employed in the draw-heads of two cars which are to be coupled together, one of the links is used to effect the coupling and the other is pushed back into its draw-head to the extent permitted by its collar *j'*.

Claim.

The housing, consisting of the box A, immovably attached to the front sill of a car, and adapted for the reception of springs *h* and *h'* and plates *f* and *f'*, or their equivalents, operating with the draw-head B, substantially as described.

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

DANIEL SHAABER.

Witnesses:

GEORGE PRINTZ,
J. H. CHEETHAM.