B. R. ROSE.

Car Coupling.

No. 107,814. Patented Sept. 27, 1870.

Fig: 1.

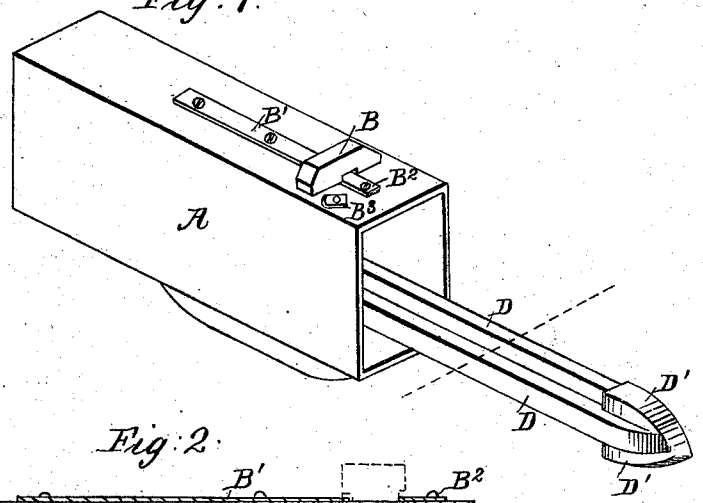


Fig: 2.

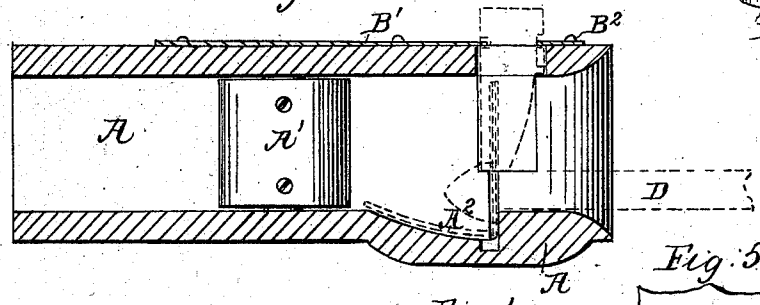


Fig: 3.

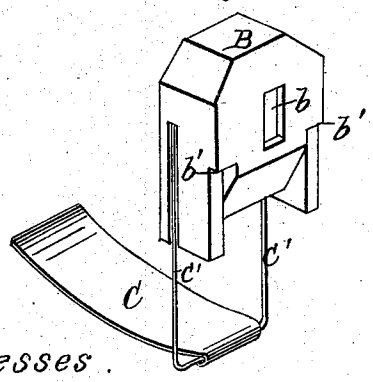


Fig: 4.

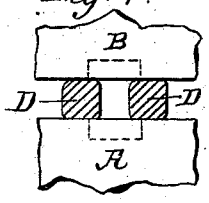
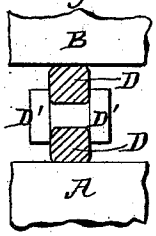


Fig: 5



Witnesses.

C. F. Clarkson

G. H. Sprague.

Inventor

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UNITED STATES PATENT OFFICE.

BENNETT R. ROSE, OF KANSAS CITY, MISSOURI.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **107,814**, dated September 27, 1870.

To all whom it may concern:

Be it known that I, BENNETT R. ROSE, of Kansas City, in the county of Jackson and State of Missouri, have invented certain Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a perspective view of my improved coupling, showing the coupling-link in position. Figure 2 is a longitudinal vertical section of the draw-head, showing the coupling pin or block and its attachment and the link in dotted lines. Fig. 3 is a perspective view of the coupling pin or block and the apron attached thereto. Figs. 4 and 5 are sections of the coupling-link.

The same letters are used in all the figures in the designation of identical parts.

This invention relates to car-couplings; and my improvements consist in peculiarities of construction, combination, and arrangement of various parts thereof, whereby an automatic car-coupling is produced, which at the same time will release the links of a car in a train thrown off the track and turned upon its side, and thus prevent other cars from being drawn after it.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the annexed drawing, A represents a draw-head, in the front end of which a large rectangular aperture is formed, which is contracted by protuberances, as at A^1, near its central portion. Beyond these protuberances the opening may be again enlarged, as shown. The mouth of the draw-head is made flaring, in the usual manner. Upon the under side its front end is thickened, to permit the formation of a recess, A^2, in its interior, as shown in Fig. 2.

In the upper side of the draw-head an aperture is made, and recesses are cut in its vertical walls, in which the coupling pin or block is fitted so as to work freely up and down therein, the width of the recesses being somewhat less than that of the aperture, to conform them to the shape of the coupling-block. The form of this latter (marked B) is clearly shown in Fig. 2, it being beveled in front, at its lower end, to permit the beveled projection or barb on the link to raise it on entering the draw-head.

The loose end of a spring, B^1, fastened upon the draw-head, is embedded in the coupling-block, tending to hold it down upon the link; and to prevent its being raised too high, I provide a stop, B^2, projecting into a recess, *b*, in such block, permitting just sufficient movement to release the coupling-link.

A button, B^3, may be turned under one of the shoulders formed at *b' b'*, to hold the coupling-block in an elevated position.

C represents an apron, made of sheet metal, by preference, and pivoted at one end to the cross-bar of a yoke, C'. This yoke is fastened to the sides of the coupling-block, in which it is embedded, as shown, and extends downward from it, just in rear of the shoulder of the draw-head formed by the recess A^2, such a distance that, as the coupling-block is raised to the height permitted by the stop B^2, the upper surface of the apron will be on a level with the bottom of the mouth of the draw-head, and, raising the coupling-link with it, permit the same to be withdrawn.

Suitable grooves are cut in the sides of the draw-head, in which the vertical bars of the yoke may move. The apron, extending from the yoke to the rear, lies along the bottom of the recess A^2 when the link is inserted, as indicated in dotted lines in Fig. 2.

D represents the coupling-link which is to be used in connection with this car-coupling. It is made pointed at its ends, and beveled projections D' are formed upon its flat sides. The inner sides of these projections are vertical, and when the link is inserted one of them will bear against the shoulder in the draw-head, and the other against the coupling-block.

It will be observed that the aperture in the draw-head is considerably wider than the link in its widest part, so that it may freely move therein, to allow for the vibrations of the cars and permit them to turn curves without damage to the coupling.

The link, lying with its side upon the bottom of the mouth of the draw-head, will be held in the proper horizontal position, so that

it can enter the draw-head of the car, to be coupled to it by the coupling-block bearing down on it. The aperture in the draw-head is, of course, sufficiently contracted at A^1 to prevent the link passing through it at that point.

In case, in a train of cars provided with my couplings, one of the cars be thrown off the track and turned upon its side, it will cause the links which connect it to the cars in front and rear of it to turn up edgewise, and either release them or draw them out of the draw-heads of such cars, in either case confining the accident to the particular car thus thrown off.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The arrangement of the recessed draw-head A A^2, coupling pin or block B, spring B^1, stop B^2, button B^3, yoke C′, and apron C, all arranged to operate as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two attesting witnesses, at Kansas City, this 17th day of March, 1870.

BENNETT R. ROSE.

Witnesses:

W. J. MANKER,

A. LEE GLEN.