March 1, 1932. S. W. BANSHAK 1,847,806

CAR COUPLING

Filed April 27, 1931

Fig. 1.

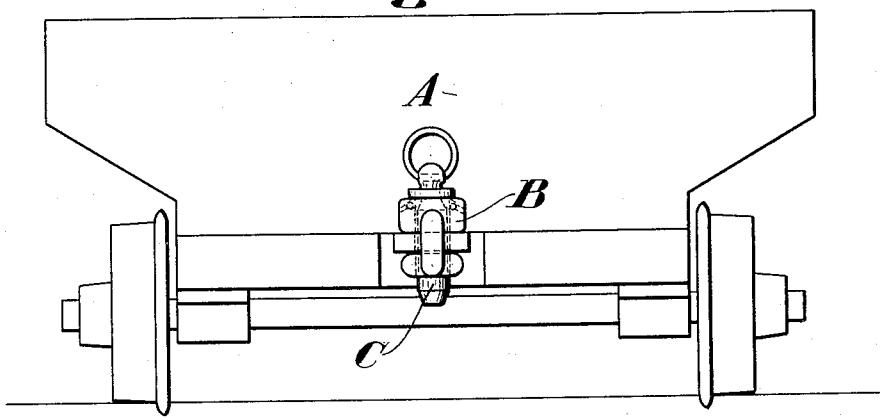


Fig. 2.

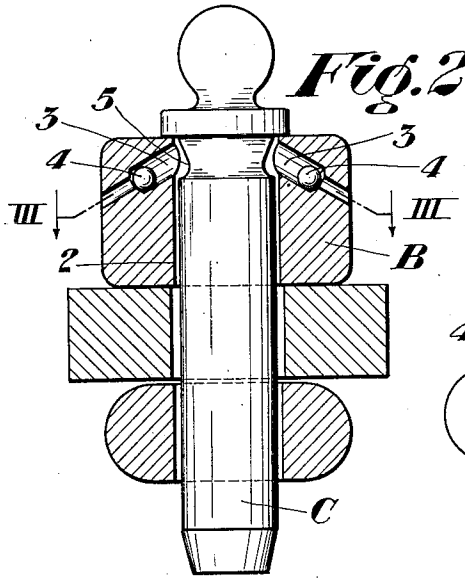
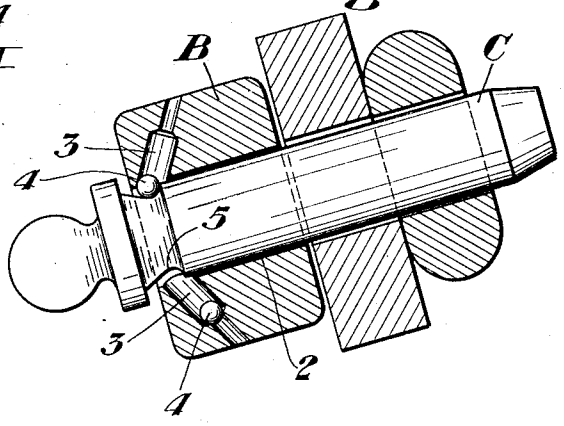


Fig. 4.



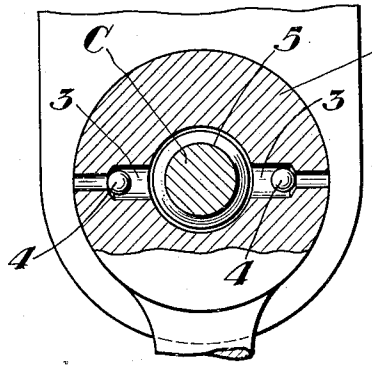


Fig. 3.

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Patented Mar. 1, 1932 1,847,806

UNITED STATES PATENT OFFICE

SYLVESTER WALTER BANSHAK, OF ROWES RUN, PENNSYLVANIA

CAR COUPLING

Application filed April 27, 1931. Serial No. 533,344.

My invention relates to car couplings, and particularly to an improved form of pin and link type mine car couplings, my intention being to provide a simple and effective means for preventing the loss of coupling pins as the cars are tilted in dumping operation.

Generally speaking, a coupling constructed in accordance with my invention is characterized by having the coupling pin receiving member ordinarily carried by the car, provided with a pair of upwardly inclined bores. These bores open into the pin receiving aperture, and carry loosely fitting members movable into engagement with the coupling pin upon tilting of the car, this pin preferably being annularly grooved to insure a positive engagement.

In the drawings:

Figure 1 is a specific example of a coupling constructed in accordance with my invention, applied to a conventional mine car.

Figure 2 is a vertical cross section of the coupling shown in the preceding figure.

Figure 3 is a horizontal cross section on the line III—III of Figure 2.

Figure 4 is a vertical cross section of the coupling as it appears when the mine car is tilted.

Referring to the drawings, a mine car A is shown with a coupling of the pin and open link type, which includes a pin receiving coupling member B carried by the car, and a coupling pin C.

The coupling member B has a pin receiving aperture 2 into which a pair of upwardly inclined bores 3 open, a loosely fitting ball 4 being carried in each of these bores. The bores 3 are continued in reduced size to the outside of the member B, to enable dislodgment of the balls should they become fast for any reason, and are aligned in the direction the car is to be tilted in dumping operation, this generally being sidewise.

The coupling pin C is in coupling position in the aperture 2, and is formed with an annular groove 5, the bores 3 being arranged with their openings proximate to this groove.

When the car A is upright this pin C may be easily inserted or withdrawn from the member B in coupling and uncoupling operations, but when the car is tilted, one or the other of the balls 4 will roll into engagement with the pin to prevent its displacement.

While I have shown and described one specific embodiment of my invention, it will be understood that I do not wish to be limited thereto, since various modifications may be made by those skilled in the art without departing from the scope of my invention, as defined in the appended claims.

I claim:

1. In a car coupling, a coupling member comprising a body having a pin receiving aperture, a plurality of upwardly inclined bores opening into said aperture, and gravity retained pin engaging members carried in said bores.

2. In a car coupling, a coupling member having a pin receiving aperture, and a plurality of upwardly inclined bores opening into said aperture, said bores each carrying a loosely fitting ball, and being aligned so that, when the car is tilted, one or another of said balls will roll into engagement with a coupling pin received by said aperture.

3. A car coupling comprising, in combination, an annularly grooved coupling pin, and a coupling member carried by the car, said member having an aperture receiving said pin, and a plurality of upwardly inclined bores opening into said aperture proximate the groove in said pin, each of said bores carrying a loosely fitting ball, and being aligned so that, when the car is tilted, one or another of said balls will roll into engagement with said coupling pin.

In testimony whereof, I have hereunto set my hand.

SYLVESTER WALTER BANSHAK.