March 19, 1929. F. MATHEWS 1,705,488

RETAINER VALVE BRACKET FOR RAILWAY CARS

Filed Oct. 2, 1926

Fig. 1

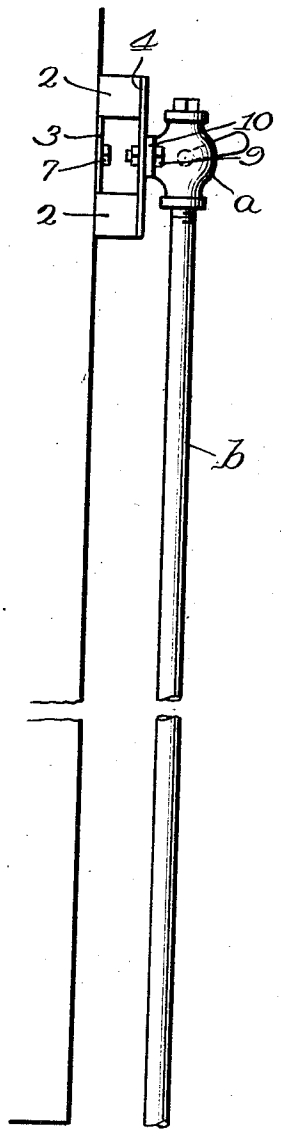
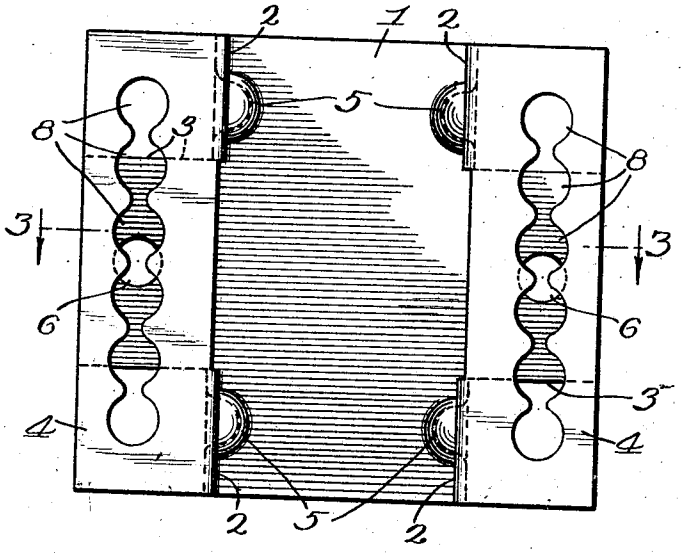


Fig. 2



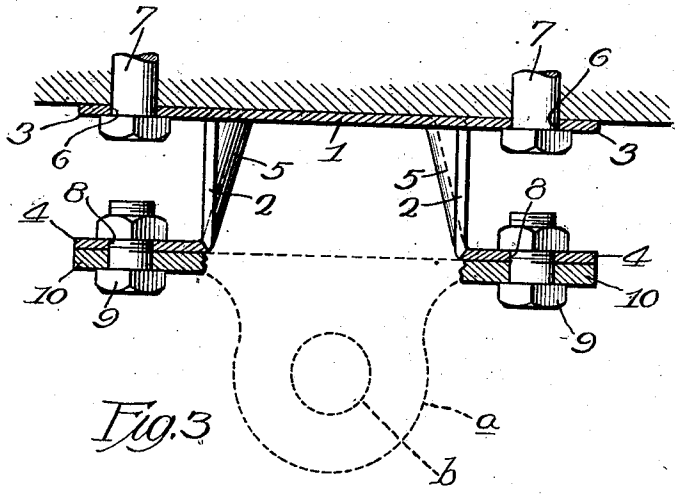


Fig. 3

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UNITED STATES PATENT OFFICE.

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RETAINER-VALVE BRACKET FOR RAILWAY CARS.

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The invention relates to means for supporting the retaining valve, which forms part of the brake apparatus of a railway car. Usually the retaining valve of a railway freight car is mounted upon the upper portion of the end of the car, the valve casing being bolted directly to the end of the car, with a small pipe extending downwardly from the valve casing to the air brake apparatus. On account of excessive vibration in service, this pipe is apt to snap off at a point closely adjacent the retainer valve. It then becomes necessary to replace it with a new length of pipe.

The present invention seeks to provide a supporting bracket for the retaining valve casing which is bolted directly to the upper portion of the car end and which is provided with means for securely but adjustably supporting the valve casing so that in case the pipe breaks adjacent the valve casing, the end of the pipe can be re-threaded and the valve lowered in position to engage it, thus avoiding the necessity of replacing the entire length of pipe. A further object is to provide a bracket of stout construction and one which can be mounted upon old cars by means of the retaining bolts now used to hold the retainer valve casing in position. The invention consists in the features of improvement hereinafter set forth, illustrated in the preferred form in the accompanying drawing and more particularly pointed out in the appended claims.

In the drawings:

Fig. 1 is a view illustrating the application of the present improvement for holding a retaining valve in position on the end of a freight car.

Fig. 2 is a view in elevation of the improved bracket.

Fig. 3 is a section on the line 3—3 of Fig. 2.

The improved bracket comprises a base portion adapted to abut against the end of the car and a seat for the valve casing spaced outwardly from the base portion, the base portion having holes at its opposite sides for bolts by which the bracket is secured to the car and the seat having a vertical series of bolt openings at its opposite sides for receiving the bolts by which the valve is adjustably secured in position on the bracket. The bolt openings at each side of the bracket have their axes lying in the same vertical plane so that the bracket can be readily inserted between the retainer valve casing and the car end in cars now in use.

The improved bracket, in the preferred form shown, is U-shaped in section and is formed of pressed sheet metal. It comprises a base portion 1, two pairs of outwardly projecting side extensions 2, flanges or extensions 3 extending laterally from the base portion and each arranged between a pair of the outwardly projecting extensions 2 and two flanges 4 each of which is integral with two of the extensions 2 at one side of the bracket and extends laterally from the outer ends thereof. Obviously the construction can be readily formed from a rectangular piece of sheet metal of suitable dimensions by slitting or shearing it along lines corresponding to the outlines of the extensions or flanges 3, and then shaping it to form the side extensions 2 and flanges 4. Preferably, in the shaping operation, to strengthen the bracket, the outwardly projecting extensions 2 are each provided with a stiffening corrugation 5.

The extensions 3 are provided with bolt openings 6 for receiving bolts 7 by which the bracket is secured in position on the end of the car. The flanges 4 form a seat for the valve casing *a* and are each provided with a vertical series of bolt openings 8 for receiving bolts 9, by which the valve casing is secured to the bracket, these bolts extending through the usual perforated ears 10 on the sides of the valve casing. In case the portion of the pipe *b* which extends within the valve casing is broken off, as often happens in service, the end of the pipe can be rethreaded and the casing lowered in position on the bracket to engage it.

In order to permit quite a number of such adjustments, the bolt openings or seats 8 preferably merge into one another, as most clearly shown in Fig. 2, each seat however being of such shape that it will hold one of the retaining bolts securely in position. The series of bolt openings or seats in each of the flanges 4 have their axes lying in the same vertical plane with the axis of the bolt opening 6 in the underlying flange or extension 3. With this arrangement the bracket can be readily mounted upon cars now in use by means of the same bolts that are employed for holding the valve casing in position.

Obviously, changes may be made in the details set forth without departure from the scope of the appended claims.

I claim as my invention:

1. A retainer valve bracket for railway cars comprising a base plate having, at its opposite sides, outwardly projecting extensions terminating in laterally projecting valve supporting flanges spaced from each other and from said base plate, each of the side portions of the base plate and each of the flanges having bolt openings with their axes in a common vertical plane, and the openings in said flanges being arranged to receive and permit the vertical adjustment of the retaining bolts for the valve casing substantially as described.

2. A retainer valve bracket for railway cars comprising a base plate having, at its opposite sides, outwardly projecting extensions terminating in laterally projecting valve supporting flanges spaced from each other and from said base plate, each of the side portions of the base plate and each of the flanges having bolt openings with their axes in a common vertical plane, and the openings in the flanges comprising vertical series of bolt seats merging into one another and each adapted to hold a retaining bolt against relative vertical movement, substantially as described.

3. A retainer valve bracket for railway cars formed of sheet metal and comprising a base, outwardly projecting extensions at opposite sides of the base, and spaced flanges projecting laterally from said base and said extensions and bolt openings in the flanges at each side of the bracket having their axes in a common plane and the openings in the outer flanges arranged in a vertical series to adjustably receive the retaining bolts for the valve casing, substantially as described.

4. A retainer valve bracket for railway cars formed of sheet metal and comprising a base, outwardly projecting sides and laterally projecting extensions and flanges on said base and sides respectively, said flanges each having a vertical series of bolt seats and each of said extensions having a bolt opening in the same plane with the seats of the adjacent flange, substantially as described.

5. A retainer valve bracket formed of sheet metal and comprising a base having at each side spaced outwardly projecting extensions and an intermediate laterally projecting extension, and a flange integral with and projecting laterally from the outwardly projecting extensions at each side of the bracket, each of said flanges having a vertical series of bolt seats and each of said laterally projecting extensions having a bolt opening in the same plane with the seats of the adjacent flanges, substantially as described.

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