

952,380.

Fig. 1.

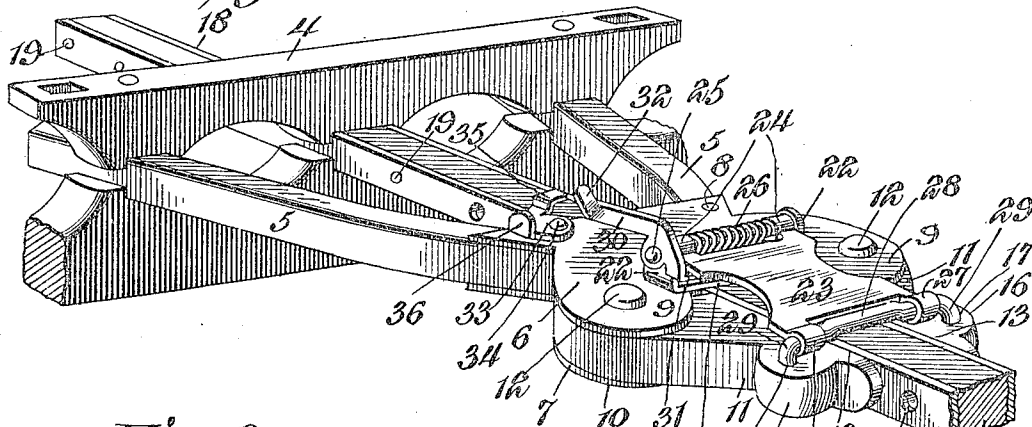


Fig. 2.

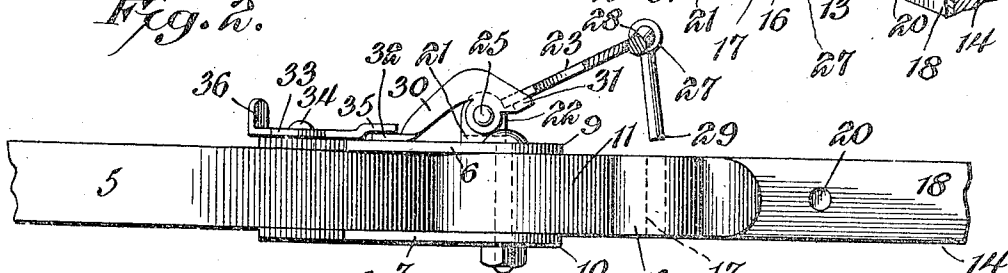


Fig. 3.

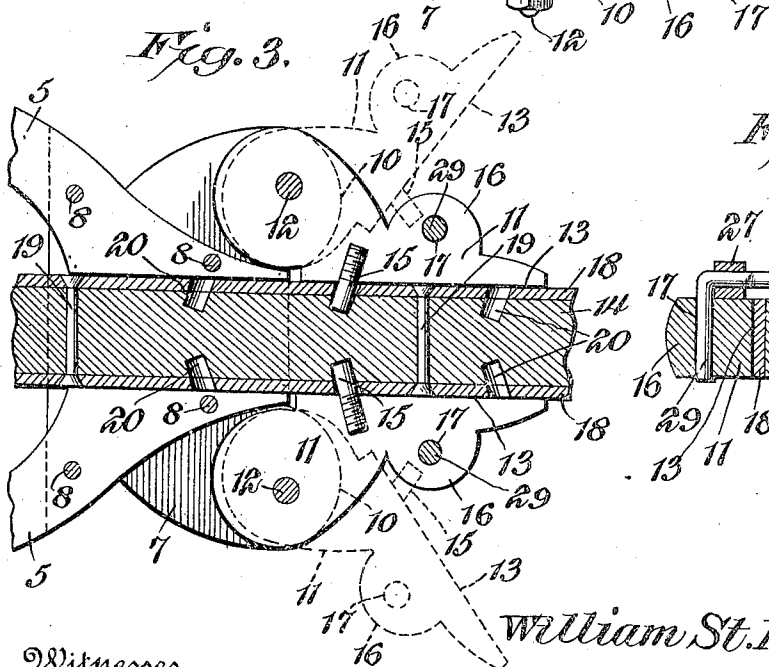
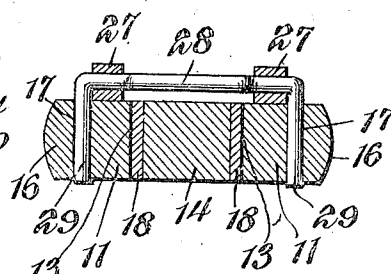


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM ST. PETER, OF DAMAR, KANSAS.

REACH CONNECTION FOR VEHICLES.

952,380.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed August 31, 1909. Serial No. 515,440.

To all whom it may concern:

Be it known that I, WILLIAM ST. PETER, citizen of the United States, residing at Damar, in the county of Rooks and State of Kansas, have invented a new and useful Reach Connection for Vehicles, of which the following is a specification.

This invention relates to vehicle reaches, and has for its principal object to provide a novel coupling for reaches whereby the rear truck of the vehicle can readily be adjusted to accommodate the vehicle to various loads.

Another object of the invention is to provide a device of the class described which is simple in construction, is easily applied to the hounds, is cheap to manufacture, and is positive in operation.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view showing my invention in position. Fig. 2 is a side view of the same without the rear bolster. Fig. 3 is a horizontal sectional view through the same, and Fig. 4 is a detail sectional view showing the coupling in a locked position.

Like reference numerals designate corresponding parts in all the figures of the drawing.

Referring to the drawing, the rear bolster 4 and hounds 5—5 are of the usual construction. Arranged above and below the front ends of the hounds and extending forward of the said ends, are upper and lower plates 6 and 7 respectively, which are secured to said hounds by bolts, rivets 8—8 or any other suitable fastening means. Each of these plates is provided with oppositely disposed and outwardly projecting ears 9 and 10 respectively. Jaws 11—11 are respectively arranged between the said plates and are pivoted to each pair of the said ears by means of suitable vertical bearing pins 12—12, and are adapted to swing outwardly in a horizontal plane. These jaws extend beyond the ears, and the inner or engaging

sides 13 thereof are formed flat to lie against the vehicle reach-bar 14. The said inner faces of the jaws are provided with oppositely arranged and rearwardly inclined pins 15 which are preferably detachable so as to be readily removed when desired. The free ends of the jaws are provided with enlarged portions 16—16 in which are provided vertical openings 17—17 employed for the purpose hereinafter described.

The reach bar 14 is provided with longitudinal side plates 18—18 of metal, and are held in place by rivets 19—19 or the like. Oppositely arranged spaced openings 20—20 are formed in the said reach bar and extend rearwardly from the sides in a horizontal plane and at substantially the same angle as the pins 15 are to the inner side 13 of the jaws. It will thus be seen that when the jaws are positioned as shown in Figs. 1 and 3, the pins 15 are arranged within a pair of the oppositely arranged openings 20. To hold the jaws in this position a locking device is provided which comprises a bracket 21 having upstanding ears 22—22. This bracket is preferably arranged transversely on the upper plate 6 and secured thereon by rivets or any other suitable means. A plate 23 has one edge bifurcated to form spaced eyes 24—24 which are adapted to embrace a bearing pin 25 mounted between the ears 22 of the said bracket. A spring 26 is arranged around the said bearing pin and between the bifurcated ends 24 of the plate, one end engaging the bracket and the other end the plate in order to normally hold the said plate against the reach bar 14. The free end of the said plate is likewise bifurcated to form spaced eyes 27—27 adapted to receive a U-shaped locking pin 28, the legs 29—29 thereof being spaced apart and adapted to enter the openings 17—17 of the jaws. A lifting lever 30 is pivoted to the bearing pin 25 and comprises an inwardly extending portion 31 which is adapted to engage the underside of the plate 23. The lever extends rearwardly and is bent to form a foot-piece 32. A locking member 33 is pivoted to the upper plate 6 by a rivet or other suitable means 34, and comprises a nose 35 and a finger-piece 36, the said nose being adapted to engage the foot-piece 32 and thereby hold the plate and consequently the locking means out of engagement with the jaws, as shown in Fig. 2 of the drawing.

From the foregoing, it will be readily ap-

parent that whenever it is desirous of shifting the rear bolster, the lever 30 is depressed by means of the foot-piece 32; the locking member 33 is swung around by means of the finger-piece 36 so that the nose 35 is positioned over the said foot-piece 32 which will thereby lock the said lever. The upward movement of the inwardly extending portion 31 of the lever, will raise the plate 23 against the tension of the spring 26, and the said plate will carry with it the U-shaped locking-pin 28. The plate will be raised sufficiently to disengage the legs 29—29 of the said pin 28 from the jaws 11—11. Thus, the locking-pin is held out of engagement with the said jaws while the jaws are swung outwardly, to permit of the rear bolster being moved longitudinally in either direction upon the reach bar. After the bolster has been positioned, the jaws 11—11 are swung around so that the pins 15—15 will engage one pair of the openings 20 of the reach bar, and the locking member 33 is disengaged from the lever 30. The plate 23 is caused by the spring 26 to be lowered, and the legs 29—29 of the locking-pin 28 will be positioned within the openings 17 of the jaws. By reason of the fact that the spring 26 tends to hold the plate 23 normally against the reach-bar, and consequently the locking-pin in the openings of the jaws, all danger of the coupling becoming loosened by rough travel will be overcome.

What I claim is:—

35 1. A reach coupling for vehicles comprising reach-engaging elements carried by the hounds and pivoted thereon to swing horizontally, and means separate from the elements for locking the said elements in their engaged position on opposite sides of the reach.

40 2. A reach-coupling for vehicles comprising pivoted reach-engaging jaws carried by the hounds, means for locking the said jaws in their operative position, and a device for holding the said locking means out of engagement with the said jaws when disengaging the latter from the reach.

45 3. A reach-coupling for vehicles comprising upper and lower plates carried by the hounds, reach-engaging jaws pivoted to swing horizontally between the plates on opposite sides of the reach bar, and means for locking the said jaws in their engaged position.

50 4. A reach-coupling for vehicles comprising upper and lower plates carried by and extending beyond the front ends of the hounds, horizontally swinging reach-engaging jaws arranged between and pivoted to the extended portions of the plates, and means for locking the said jaws in their engaged position.

55 5. A reach-coupling for vehicles comprising upper and lower plates carried by the

hounds, horizontally swinging reach engaging jaws arranged between and pivoted thereto and extending beyond the said plates, the extended portions of the jaws having flat sides adapted to bear against the reach, pins projecting from the said flat inner sides of the jaws and adapted to engage openings in the reach, and means for locking the said jaws in their engaged position. 70

6. A reach-coupling for vehicles comprising upper and lower plates carried by the hounds, reach-engaging jaws pivoted between the plates, and a bracket-supported locking-pin mounted on the upper plate and adapted to normally engage both of the jaws and thereby lock the same in their engaged position. 75

7. A reach-coupling for vehicles comprising upper and lower plates carried by the hounds, reach-engaging jaws pivoted between the plates, a bracket secured to the upper plate and provided with a bearing-pin, a plate hinged to the said bearing-pin and supporting a locking-pin at its free end, and means for normally holding the said pin in engagement with both jaws, and thereby lock the same in their operative position. 80 85 90

8. A reach-coupling for vehicles comprising upper and lower plates carried by the hounds, reach-engaging jaws pivoted between the plates and respectively provided with a vertical opening, a bracket secured to the upper plate and provided with a bearing-pin, a plate hinged to the bearing-pin and provided at its free end with spaced eyes, a U-shaped locking-pin loosely mounted in the said eyes, and a spring mounted on the bearing-pin and engaging the hinged plate for normally holding the legs of the locking-pin in the openings of the jaws and thereby lock the jaws in their engaged position. 95 100 105

9. A reach-coupling for vehicles comprising upper and lower plates carried by the hounds, reach-engaging jaws pivoted between the plates and respectively provided with a vertical opening, a bracket secured to the upper plate and provided with a bearing-pin, a plate hinged to the bearing-pin and provided at its free end with spaced eyes, a U-shaped locking-pin loosely mounted in the said eyes, a spring mounted on the bearing-pin and engaging the hinged plate for normally holding the legs of the locking-pin in the openings of the jaws and thereby lock the jaws in their engaged position, a lever fulcrumed on the said bearing-pin and having one end engaging the hinged plate and the other end terminating in a foot-piece, and a member mounted on the upper plate of the hounds and adapted to engage the foot-piece of the lever and thereby lock the locking-pin out of engagement with the jaws. 110 115 120 125

10. A reach-coupling for vehicles, comprising 130

ing upper and lower plates carried by the hounds, horizontally swinging reach-engaging jaws arranged between and pivoted to the plates at either side of the reach, said jaws being provided with rearwardly inclined pins projecting from the sides of the said jaws and adapted to engage in correspondingly inclined openings in the reach, the extended portions of the jaws being provided with openings, and a locking-pin mounted on the upper plate and adapted to be normally seated within the openings of the jaws and thereby lock the same in their reach-engaged position.

11. In a reach-coupling for vehicles, the combination with the hounds, and a reach having longitudinal reinforcing side plates and provided with a plurality of pairs of rearwardly inclined spaced openings extending from the said side plates and into the bar, of upper and lower plates carried by the hounds, reach-engaging jaws pivoted between the plates at either side of the reach, said jaws being provided with flat inner sides, and pins projecting from the said sides and adapted to engage in a pair of the said openings of the reach, and means mounted on the upper plate for locking the said jaws in their reach-engaged position.

12. In combination with the hounds, and a reach having a plurality of spaced open-

ings in its sides, horizontally swinging reach-engaging jaws carried by the hounds and having pins adapted to engage in the said openings, and means for locking the jaws in their engaged position on opposite sides of the reach.

13. In combination with the hounds, and a reach having a plurality of spaced openings in its sides, reach-engaging jaws mounted on the hounds and having pins adapted to engage in the said openings, and means for locking the jaws in their engaged position on opposite sides of the reach, and a separate device for holding the locking means out of engagement with the jaws when adjusting the reach.

14. In combination with the hounds, and a reach having a plurality of spaced openings, horizontally swinging reach-engaging jaws carried by the hounds and having pins adapted to engage in the said openings, and means for locking both jaws in their engaged position.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM ST. PETER.

Witnesses:

J. H. MALONE,

E. F. CHOQUETTI.