

No. 612,814.

Patented Oct. 25, 1898.

W. D. BOETTLER.
WAGON COUPLING.

(Application filed Oct. 11, 1897.)

(No Model.)

Fig. 1.

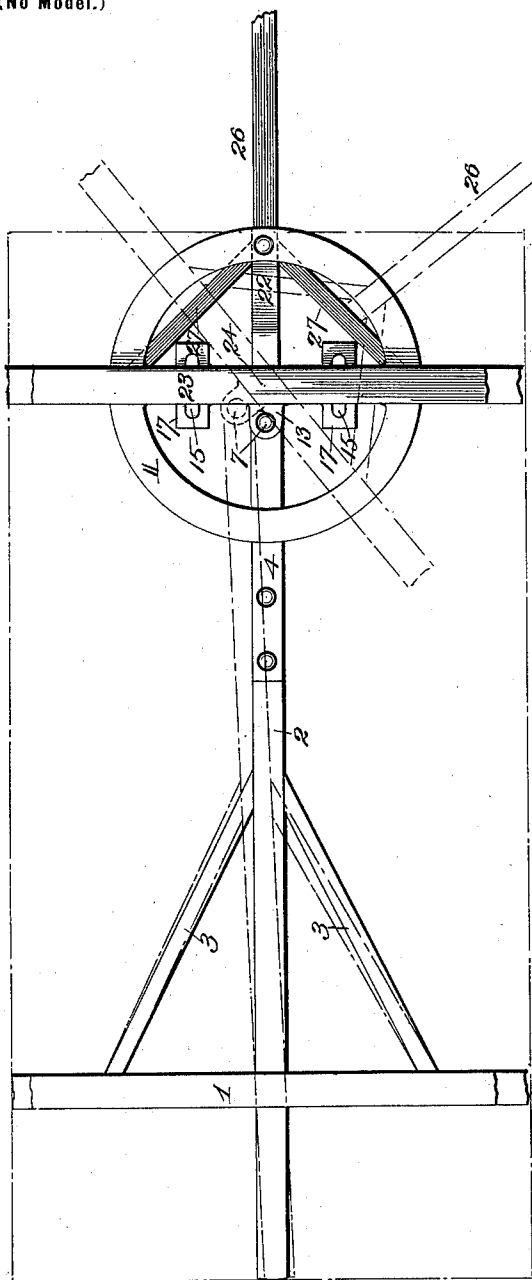


Fig. 2.

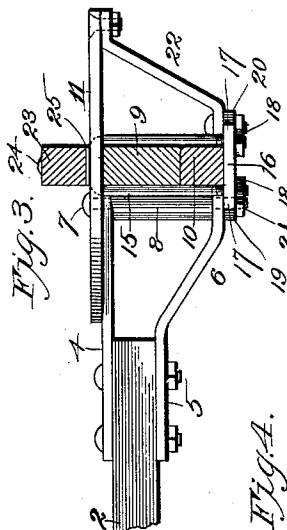
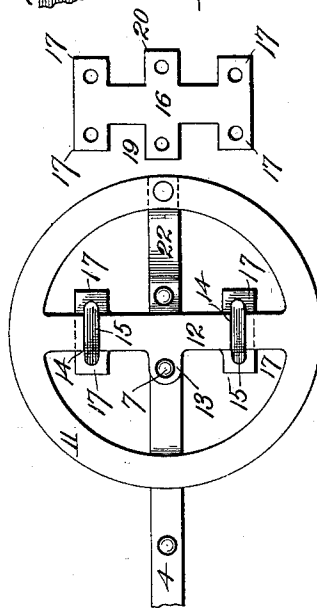


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

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WAGON-COUPLING.

SPECIFICATION forming part of Letters Patent No. 612,814, dated October 25, 1898.

Application filed October 11, 1897. Serial No. 654,798. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. BOETTLER, of Olden, Howell county, Missouri, have invented certain new and useful Improvements in Wagon-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to wagons, and more especially to wagon-couplings; and my object is to dispense with the axle-hounds, circle-iron, tongue-hounds, and other parts or fixtures and connect the tongue directly to the axle, and thereby reduce the weight without diminishing the strength or durability of the wagon or axle.

With this object in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a plan view of the running-gear of a wagon embodying my invention. Fig. 2 represents a plan view of a portion of the front part of the same, the bolster, however, being omitted. Fig. 3 is a side view of the same, and Fig. 4 a plan view of the clamp-plate at the under side of the axle.

In the said drawings, 1 designates the rear bolster, 2 the longitudinal reach, and 3 the reach-hounds. These parts are of the usual or any preferred type.

4 designates a bar which is bolted to and projects forwardly from the front end of the reach.

5 designates a plate bolted to the under side of the front end of the reach, which projects downward and forward, as shown at 6, so as to leave considerable space between the superposed front ends of said plates. The pivot-bolt 7 extends down through said plates, and is mounted thereon and also interposed between the plates is an elongated washer or sleeve 8, which forms at the same time an extended bearing and protection for the bolt and a brace for said bars.

9 designates the axle-bed, and 10 the axle below.

The fifth-wheel 11 is mounted upon the axle-

bed and rests rearward of the same upon the bar 4. A cross-bar 12, which preferably is formed integral with said fifth-wheel, as shown, rests upon the axle-bed and is provided with a rearwardly-projecting horizontal ear 13, overlapping the front end of the bar 4, and through said ear the pivot-bolt 7 also extends. At opposite sides of its center said cross-bar is formed with parallel grooves or depressions 14, in which fit snugly the bridge portions of a pair of clips 15, the legs of which extend vertically downward and embrace snugly the opposite sides of the axle-bed and axle. A clamp-plate 16 is arranged at the under side of the axle, and said clip-legs extend down through the ears 17 of said plate and are engaged by clamping-nuts 18. Said plate is also provided with the rearwardly and forwardly projecting ears 19 and 20 at its middle, and through the former extends the pivot-bolt 7, hereinbefore referred to, and engaging it is a clamping-nut 21, so as to provide a pivotal but strong and durable connection between the front end of the reach and the front axle.

22 designates a Z-shaped bracket which is bolted at its lower end upon the front ear 20 of the plate 16 and at its upper end to the under side of the fifth-wheel in longitudinal alinement with the center of the axle, so as to provide a strong and reliable support for the front half of the fifth-wheel.

23 designates the front bolster, of the customary construction and arrangement, and 24 the king-bolt carried by the axle, upon which the bolster is mounted in the customary manner. This bolster, in lieu of the circle-iron, is reinforced at its underside by the thin wear-plate 25, which frictionally bears upon the fifth-wheel and protects the bolster from undue wear.

26 designates the tongue, and 27 brace-bars which connect it directly with the front axle, so as to make a cheap, light, and strong connection.

It will be noticed by reference to Fig. 1 that the pivot 7 of the fifth-wheel is in longitudinal alinement with the centers of the front and rear axles as the vehicle moves straight forward, but that in making a turn the joint is broken by throwing the said pivot out of alinement with the front and rear axles, the

parts assuming approximately the position shown in dotted lines. During this movement it will be noticed that the rear truck of the vehicle will swing a little, as indicated by dotted lines, but not enough to strain or injure the vehicle in the slightest degree. Vehicles of course can be built with the connection at the rear end sufficiently loose to provide for this slight change of relation of the parts as the wagon makes a turn.

From the above description it will be apparent that I have produced a construction which embodies the features of advantage enumerated in the statement of invention, and it is to be understood, of course, that changes which do not involve a departure from the spirit and scope of the same I reserve the right to make.

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

A wagon-coupling, comprising an axle-bed,

the axle below the same, a fifth-wheel upon the axle-bed and provided with a cross-bar 12, having an ear 13, and a pair of grooves 14, a clamp-plate below the axle, clips 15, engaging said grooves 14, and projecting through the clamp-plate, nuts engaging the ends of the clips, a Z-shaped bracket connecting the fifth-wheel and the clamp-plate at the front side of the axle, the reach 2, the bars 4 and 6, projecting therefrom and fitting between the ear 13, and the clamp-plate, a pivot-bolt connecting the said ear, the clamp-plate and bars 4 and 6, and a washer or sleeve mounted on said bolt and bearing at its ends against said bars, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM D. BOETTLER.

Witnesses:

C. H. COTTNAM,
C. OLIN RICE.