(No Model.)

A. J. WATSON.

FIFTH WHEEL.

No. 418,097. Patented Dec. 24, 1889.

Fig. 1.

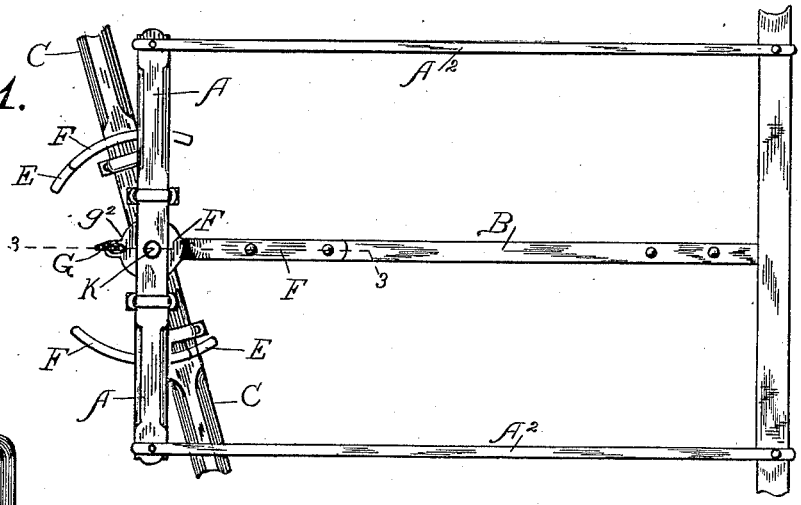


Fig. 2.

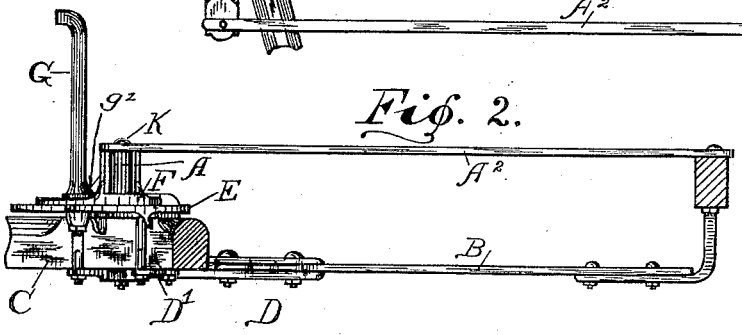


Fig. 3.

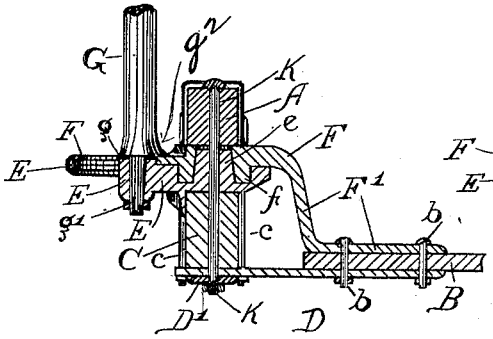


Fig. 4.

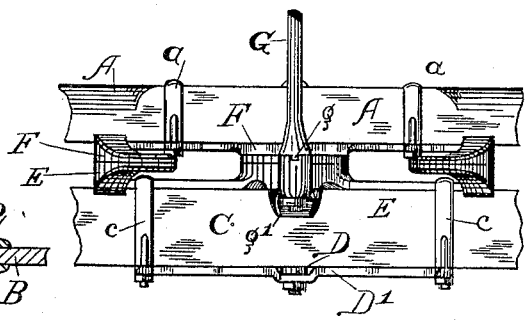
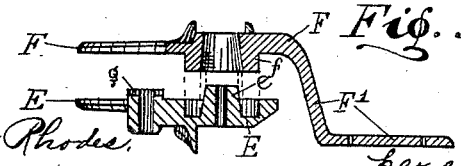


Fig. 5.



WITNESSES.

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ANDREW J. WATSON, OF MARTINSVILLE, ASSIGNOR OF ONE-HALF TO ISAAC FECHHEIMER, OF TERRE HAUTE, INDIANA.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 418,097, dated December 24, 1889.

Application filed October 12, 1889. Serial No. 326,800. (No model.)

To all whom it may concern.

Be it known that I, ANDREW J. WATSON, a citizen of the United States, residing at Martinsville, in the county of Morgan and State of Indiana, have invented certain new and useful Improvements in Fifth-Wheels, of which the following is a specification.

My said invention relates to that class of devices known as "fifth-wheels" used in the running-gear of vehicles; and it consists in certain improvements in the construction of the several parts, which render the device simple and inexpensive in construction, efficient and durable in operation, and convenient for the attachment of other parts, which are generally or may be used in connection therewith, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of so much of the running-gear of the vehicle as includes all those parts to which the devices embodying the invention are directly attached, the ends of the axles being broken off; Fig. 2, a side elevation of the same; Fig. 3, a central vertical sectional view, on an enlarged scale, looking upwardly from the dotted line 3 3 in Fig. 1; Fig. 4, a detail front elevation of the fifth-wheel and immediately adjacent parts; and Fig. 5, a view similar to a portion of Fig. 3, but with the two parts of the fifth-wheel separated.

In said drawings the portions marked A represent the front bolster of the vehicle; B, the reach; C, the front axle; D D′, the two parts of a reach-coupling connecting the reach to the axle; E, the lower part of my improved fifth-wheel; F, the upper part thereof, and G one member of a tongue-support.

The bolster A is of an ordinary and well-known construction, and is connected (in the construction shown) by side bars A^2 to the rear portion of the running-gear. The reach B and axle C are or may be also of an ordinary construction, and the coupling D D′ is not of my present invention. As shown, this coupling permits the axle to turn freely, and the bolt K, passing through said coupling, is also the king-bolt.

The lower part E of the fifth-wheel is mounted upon the axle C, where it is secured by clips *c* (which clips *c* also secure the coupling part D′) in an ordinary and well-known manner. In its upper surface is an annular groove surrounding an upward projection *e*, into which groove an annular flange *f* on the part F fits. Said projection or boss *e* extends up through the part F and turns in a corresponding hole therein as the axle is moved on its pivot. On its front side is cast a projection E′, which is adapted to receive and support the member G of the tongue-support. This is a matter of considerable advantage, as it has usually been difficult to connect tongue-supports to fifth-wheels or axles satisfactorily, and by this construction such difficulties are entirely overcome. The preferable form of adapting this projection to use is to form it with a round hole extending down through it to receive a corresponding tenon on the member of the tongue-support, with a groove extending across its top, into which a flange *g* on the member of the tongue-support will extend, as shown most plainly in Fig. 4. A nut *g′* is placed on the lower end of the part G and holds it securely in place, and this is all the fastening required.

The upper part F of the fifth-wheel has a hole in its center, which passes over the projection or boss *e* on the part E, and an annular flange *f*, which extends down into the corresponding groove formed in said part E. This construction provides a plurality of bearing-surfaces and renders the fifth-wheel very strong and durable, and the engagement of these parts with each other is such that even should the king-bolt become lost or broken or displaced the parts would still remain together, and the accidents which are common upon the loss or breaking of the king-bolt are thus obviated. This part F has a brace portion F′, which extends back and is bolted to the reach B, preferably by the same bolts *b* which secure the reach-coupling D thereto. Said part F is secured to the bolster A by clips *a* in an ordinary and well-known manner. The top of said part F is extended into a plate or flange, as shown, which completely covers that portion of the part E upon which the said part F rests and protects it from sand and dirt, thus decreasing the wear and increasing the durability of the device

greatly, as well as contributing to its ease of operation. These parts are all held together by the king-bolt K, which extends down through the bolster, fifth-wheel, axle, and reach-coupling and holds them all securely together, as shown most plainly in Fig. 3.

The member G of the shaft-support is shown mainly to illustrate how such a shaft-support member may be attached to a fifth-wheel by my improved construction. In the form shown it is an upright bar, the upper end of which is formed into a catch portion to engage with the other member, which is commonly attached to the cross-bar of the shafts, and its lower end passes down through a hole in the projection E′, where it is secured by a nut, as hereinbefore described. This lower end is preferably in the form of a tenon, and the portion immediately above said tenon is preferably swelled out somewhat, as shown, to form a broader shoulder or bearing-surface than would otherwise be practicable. It is provided with a projection g^2, which extends over the plate portion of the upper part F of the fifth-wheel, and thus, when used, serves to hold the two fifth-wheel parts together, and thus constitutes an additional safeguard against accident in case of breaking or displacement of the king-bolt. The shaft-support of which this member is a part forms the subject-matter of Letters Patent No. 393,946, dated December 4, 1888, which have already been issued upon my application, and will not, therefore, be further described herein.

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

1. The combination, in a fifth-wheel, of the part E, having an annular groove and a central projection or boss, and a seat which fits down over the upper side of the axle, a part F, attached to the bolster and having a central flange adapted to fit over the projection on the part E and an annular flange adapted to fit into its groove, the top surface of which forms a plate or flange covering the lower part of the structure, and a brace F′, cast in piece with the part F and extending to the reach, substantially as shown and described.

2. The combination, in a fifth-wheel, of a part thereof attached to the axle, having a projecting portion E′, constructed, substantially as described, to serve as the support for a member of a shaft-support, and said shaft-support member, substantially as set forth.

3. The combination of a fifth-wheel composed of two parts and a shaft-support member attached to one of said parts and provided with a projection which overhangs the other, thus constituting a guard to prevent the separation of said two parts.

4. The combination of the bolster A, reach B, axle C, reach-coupling D D′, fifth-wheel E F, constructed as described, and the king-bolt K, passing down through said bolster, fifth-wheel, axle, and reach-coupling and holding them all together, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Martinsville, Indiana, this 7th day of October, A. D. 1889.

ANDREW J. WATSON. [L. S.]

Witnesses:
N. A. WHITAKER,
U. H. FARR.