

(No Model.)

2 Sheets—Sheet 1.

J. D. DORT.  
FIFTH WHEEL.

No. 577,978.

Patented Mar. 2, 1897.

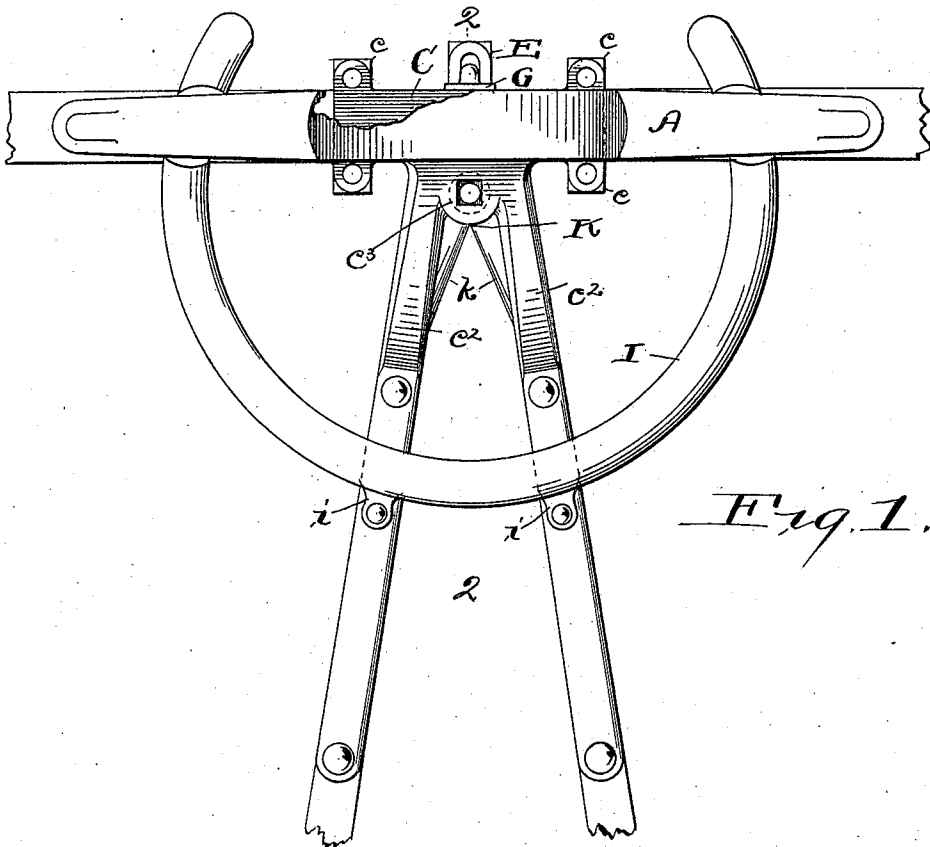


Fig. 1.

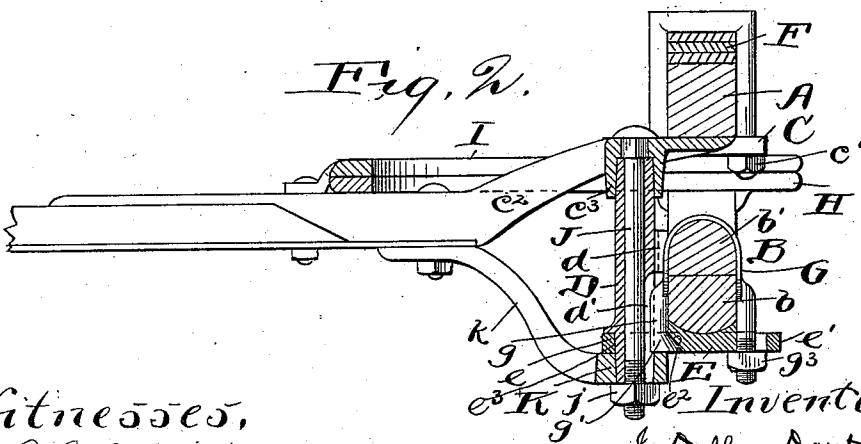


Fig. 2.

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J. Dallas Dort  
By E. L. Thurston  
his attorney

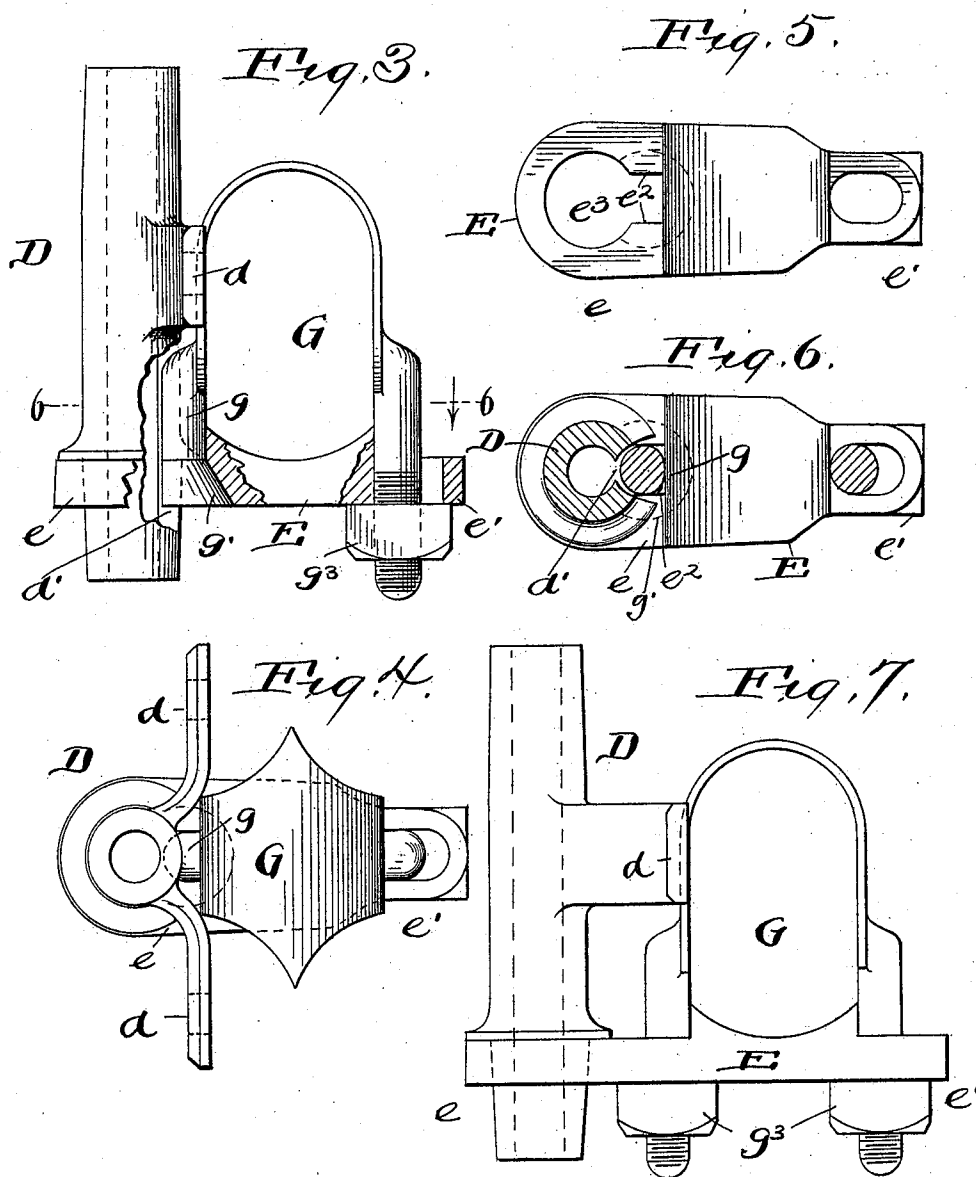
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# UNITED STATES PATENT OFFICE.

JOSIAH DALLAS DORT, OF FLINT, MICHIGAN.

## FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 577,978, dated March 2, 1897.

Application filed August 31, 1896. Serial No. 604,346. (No model.)

*To all whom it may concern:*

Be it known that I, JOSIAH DALLAS DORT, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Fifth-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the class of fifth-wheel devices wherein the center of rotation of the fifth-wheel is in a king-bolt socket located in the rear of the axle and head-block.

The object of the invention is to cheapen the construction and to reduce the number of parts which constitute the said fifth-wheel device and the means for connecting the parts thereof with the head-block and axle.

The several features of construction which in combination constitute my invention, and the advantages due to their use, will be understood from the following description and claims.

In the drawings, Figure 1 is a plan view of my improved fifth-wheel device. Fig. 2 is a sectional side elevation on line 2 2 of Fig. 1. Fig. 3 is a side elevation of the king-bolt socket, clip, and axle-plate, the latter being broken away in places, as indicated, to better show the construction and arrangement of the parts. Fig. 4 is a plan view of the parts shown in Fig. 3. Fig. 5 is a plan view of the axle-plate. Fig. 6 is a sectional plan view on line 6 6 of Fig. 3, and Fig. 7 is a side elevation of an alternate construction and arrangement of the parts therein shown.

Referring to the parts by letters, A represents the head-block, and B the axle, which is preferably constructed of an iron bar *b* and a wooden axle-stock *b'*. These two parts may, however, be of any suitable construction.

C represents the head-block plate, which lies under and in contact with the lower face only of the head-block, to which it (and the springs F) may be secured by two U-shaped clips. These clips pass over the head-block, embracing the springs, and their ends pass through ears *c c*, which project forwardly and rearwardly from said plate, being held by nuts *c' c'*. The perch-arms *c<sup>2</sup> c<sup>2</sup>* project rearward

from the head-block plate and are integral with it.

The bottom circle H is fastened by clips or otherwise to the top of the axle, and its middle part rests upon the perch-arms, which are bent downwardly, as shown, to permit this.

The top circle I is fastened by bolts or otherwise to the bottom of the head-block, and it rests upon the bottom circle. Two arms *i* extend down behind the bottom circle and are bolted to the perch-arms.

The king-bolt socket D is a vertical sleeve having two forwardly-extended arms *d d*, which are bolted to the rear side of the axle-stock. These arms are bent so that they hold the king-bolt socket away from the axle and leave room between said socket and axle for one leg of a clip G.

E represents the bottom axle-plate, which is secured against the under side of the axle by the single clip G, which passes over the axle-stock. The rear leg of the clip passes down between the two arms *d d* of the king-bolt socket and also between the said socket and axle, and both legs pass through forward and rearward extensions *e' e'* of said axle-plate. Both legs may be threaded to receive the nuts *g<sup>3</sup>*, as shown in Fig. 7; but in the cheapest construction the rearward extension *e'* of the axle-plate is provided with a slot *e<sup>2</sup>*, which joins the circular hole *e<sup>3</sup>*, in which the lower end of the king-bolt socket is journaled. The rear leg *g* of the clip G has an integral head *g'* on its end, which head may pass through the hole *e<sup>3</sup>*, but cannot be drawn through the slot *e<sup>2</sup>*, while the front leg of said clip is threaded to receive a nut, as usual. The rear leg of the clip (the head *g'* having been passed through hole *e<sup>3</sup>*) is drawn into the slot *e<sup>2</sup>* and is held therein by the king-bolt socket when it is inserted in the hole *e<sup>3</sup>*. Another detail of construction which contributes to make the clip G immovable along the axle is a vertical groove *d'* in the king-bolt socket, into which groove the clip-leg *g* projects.

As before stated, the king-bolt socket is journaled at its lower end in the hole *e<sup>3</sup>*, through which it projects. The front end of the brace K encircles the said projecting end, and the two arms *k* of said brace are bolted to the perch-arms. The upper end of the king-

bolt socket is journaled in a sleeve  $c^3$ , which is integral with and projects down from the head-block plate. The king-bolt J passes through the head-block plate, the king-bolt socket, the axle-plate, and brace, and is secured by a nut  $j$ .

The construction hereinbefore described in detail is that shown in Figs. 1 to 6, inclusive; but Fig. 7 shows a modified construction which includes some features of my invention whereby the single two-legged clip G may be used to connect the axle-plate to the axle. It is different from the construction shown in the other figures in that the axle-plate does not have a slot  $e^2$ , the clip-leg does not have a head formed on its lower end, nor does the king-bolt socket have the groove  $d$ . The rear clip-leg passes through an independent hole, and a nut screws onto its projecting end. This necessitates the removal of the king-bolt socket farther behind the axle both for the purpose of making room for the said hole for the clip-leg and to give room for the nut to be turned in. While this construction costs more than that shown in the other figures, it will be preferred by some, because it carries the center of the fifth-wheel farther in the rear of the axle and therefore permits the vehicle to turn shorter.

In all prior constructions, except one, the axle-plate has been secured to the axle by more than one clip. In one prior patent a single clip is employed for this purpose, but said clip has two legs behind the axle. This is a more expensive clip, requiring three nuts, and when it is used the arms  $d$  of the king-bolt socket have to be spread and made longer to make room for it. Moreover, the clip is distinctly visible from behind—something which it is desirable to avoid. In the construction herein shown and described the clip used for this purpose is cheap, only one or

two nuts are required, and it is practically out of sight from behind. It will also be noticed that the fewest possible number of parts are employed, and that each part is of the simplest and consequently the cheapest possible form.

Having described my invention, I claim—

1. The combination of the axle, the king-bolt socket having two diverging arms which are fastened to the axle, and an axle-plate lying against the bottom of the axle and having forward and rearward projections, the latter being provided with a hole which receives the lower end of the king-bolt socket, and a slot connected with said hole, with a two-legged clip, the rear leg of which lies in said slot and has an integral head on its lower end, said clip passing over the axle and through the forward projection of the axle-plate, substantially as and for the purpose specified.

2. The combination of the axle, a king-bolt socket having two diverging arms which are fastened to the axle, and a vertical slot between said arms, and an axle-plate lying against the under side of the axle and having forward and rearward projections, the latter being provided with a hole which receives the lower end of the king-bolt socket, and a slot connected with said hole, with a two-legged clip which passes over the axle, the rear leg entering the groove in the king-bolt socket and passing through said slot in the axle-plate, and an integral head on the lower end of said rear clip-leg, substantially as and for the purpose specified.

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

J. DALLAS DORT.

Witnesses:

CLARA CHARLES,  
F. A. ALDRICH.