

N. P. NELSON.
Fifth-Wheels for Vehicles.

No. 149,509.

Patented April 7, 1874.

Fig. 1.

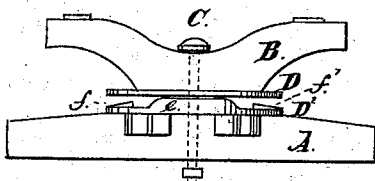


Fig. 2.

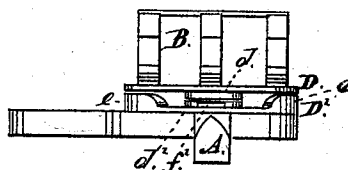
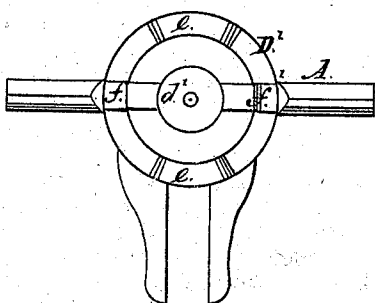


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

NELS P. NELSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN FIFTH-WHEELS FOR VEHICLES.

Specification forming part of Letters Patent No. **149,509**, dated April 7, 1874; application filed March 17, 1874.

To all whom it may concern:

Be it known that I, NELS P. NELSON, of Chicago, in the county of Cook and State of Illinois, have invented a certain Improvement in Fifth-Wheels for Trucks, of which the following is a specification:

This invention consists in so constructing the fifth-wheel, or circle upon which the forward wheels swivel, as will be more fully explained, that the said front wheels may accommodate themselves to the ruts and inequalities of road, the fifth-wheel being so made, as will appear, that the front axle may freely depart from the horizontal, as one or the other of the front wheels sinks into a rut, without wrenching the body or box of the wagon containing the load.

In the accompanying drawing, which forms a part of this specification, Figure 1 represents a front view of the bolster and front axle-tree of a wagon provided with my improved fifth-wheel. Fig. 2 is a side view of the same; and Fig. 3 is a plan view of the lower circle.

Like letters of reference made use of in different figures indicate like parts.

In the said drawing, A represents the axle-tree. B is the bolster. C is the king-pin. D is the upper and D' the lower circle of the fifth-wheel. The upper circle is a plain ring, with a central circular bearing, *d*, projecting below its general plane sufficiently to rest upon a similar bearing, *d'*, of the lower circle. The lower circle is provided at front and rear with the rounded raised portions *e*, and at each side with the inclined projections *f f'*. While the wagon is upon a level road the front axle stands horizontally. Should one of the front

wheels drop into a rut, the axle cants to that side without disturbing the bolster. When upon a level the circles are in contact at the points *e* and *d d'*. When one of the wheels is in a rut the circles are in contact at the point *f* or *f'*, and also at the other points. The circles are free to turn upon each other in any of these positions. The king-pin should have play enough to allow this oscillation. By thus allowing the front axle to conform to the level of the road without disturbing the box, that wrenching and twisting to which wagon-bodies are commonly subject, and which so soon wears them out, are obviated. This feature is especially valuable in heavy trucks, ice-wagons, and omnibuses. In wagons without springs it takes the wrenching strain away from the platform or box. In wagons with springs it takes the wrenching strain from the springs.

Having described my invention, that which I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the upper circle provided with a central bearing, and the lower circle provided with a similar central bearing, and also with the rocker projections at front and rear, substantially as specified.

2. The combination of the upper circle provided with a central bearing, and the lower circle provided with a similar central bearing, and also with the rocker projections at front and rear, and the inclined projections at the sides, substantially as specified.

NELS P. NELSON.

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