(No Model.)

L. BURG.

FIFTH WHEEL FOR VEHICLES.

No. 542,076. Patented July 2, 1895.

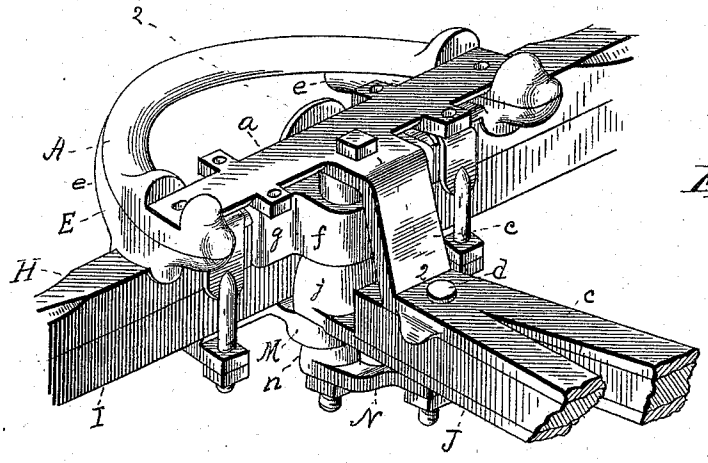

Fig. 1.

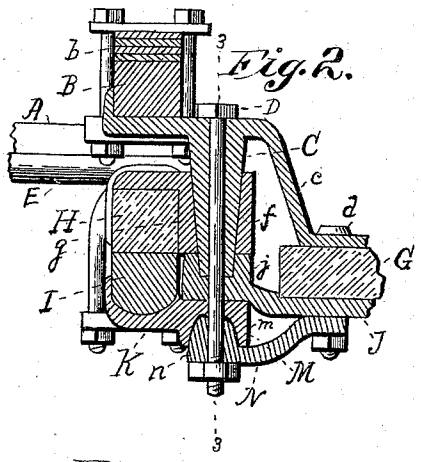

Fig. 2.

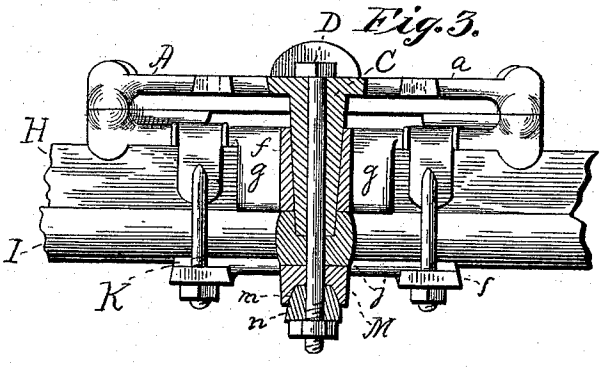

Fig. 3.

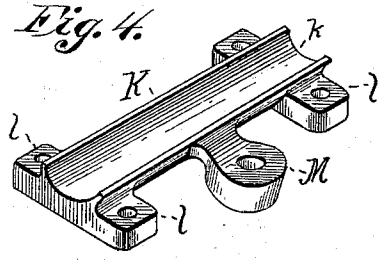

Fig. 4.

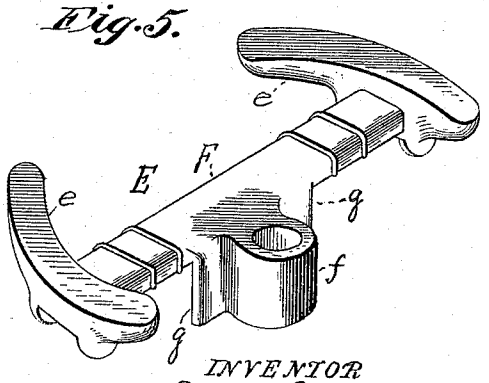

Fig. 5.

WITNESSES

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FIFTH-WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 542,076, dated July 2, 1895.

Application filed February 7, 1895. Serial No. 537,649. (No model.)

To all whom it may concern:

Be it known that I, LEWIS BURG, a citizen of the United States, residing at Dallas City, in the county of Hancock and State of Illinois, have invented certain new and useful Improvements in Fifth-Wheels for Vehicles; 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, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to that class of devices known as the "fifth-wheel" used on carriages and wagons to facilitate the turning of the front axle on the under side of the bolster or spring-bar of the body of the wagon, and has for its object to provide such a construction and arrangement of the parts connected therewith that in the event of the breaking of the king-bolt, which passes through the different parts, the contacting parts of the fifth-wheel will be held in their proper and relative position to each other, and thereby prevent the breaking away of the fore wheels and axle from the body of the carriage or wagon, which frequently causes an accident dangerous to life; and to this end my invention consists in the construction of parts hereinafter described and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a portion of the front axle of a vehicle having my improved fifth-wheel attached thereto and connected with the reach, the rear portion of which is broken away. Fig. 2 is a sectional view on line 2 2 of Fig. 1, showing the interior shape and position of each of the parts with their connection to the spring-bar, axle, and the axle-bed. Fig. 3 is a vertical section on line 3 3 of Fig. 2, showing the location and arrangement of the parts. Fig. 4 is a perspective view of the plate beneath the axle; and Fig. 5 is a perspective view of the detached lower plate of the fifth-wheel.

Like letters of reference refer to corresponding parts in each figure of the drawings.

A represents the upper plate of my improved fifth-wheel, having the usual seat *a* for the reception of the spring-bar B of the vehicle, upon which in a pleasure-wagon is attached the spring *b* by means of bolts, clips, or other convenient devices that are in common use for this purpose for holding the spring-bar in position. This plate A consists of a half-circle extending in front of the axle, with a rear portion forming a frusto-conical projection C, that extends downward to a point midway of the reach, which is provided with a uniform hole in its center to receive the king-bolt D. The upper surface of the plate is extended back over the upper surface of the conical projection C and then downward and rearward to form a brace *c*, which is integral with the plate and is securely attached to the reach G by means of a bolt *d* or other well-known fastenings.

The lower plate E of the fifth-wheel has two segments *e*, connected by means of a cross-bar F, having its under surface formed to receive the usual wooden axle-bed H, beneath which is secured the iron axle I. This lower plate E has a depending conical socket *f* on its rear central portion, which receives the conical projection C of the upper plate. In front of the socket *f*, on the rear side of the bar F, there is a flat vertical flange *g*, forming part of the body of the socket *f*, which rests against and supports the rear side of the wooden bed H of the axle and keeps the lower plate more steady in its contact with the axle.

J represents an iron brace on the under side of the reach, which is extended forward in front of the reach and provided on its end with an upwardly-projecting lug *j*, which has a conical recess in its upper side for the reception of the lower end of the conical projection C of the upper plate, and also a hole extending down through the center of the conical recess and the body of the lug *j* for the insertion of the king-bolt D, the upper side of the lug *j* forming the seat on which the conical socket *f* of the lower plate rests.

An axle-plate K is formed with a concave upper surface *k*, adapted to receive the under side of the rounded surface of the axle beneath the fifth-wheel, and is held in its position by the ordinary clips L, extending over the ribbed bar F of the lower part of the fifth-wheel, inclosing the axle I and axle-bed H, and passing down through ears *l*, extending

from each side of the plate K, where the clips are secured by nuts or other means in the ordinary way.

On the central rear portion of the axle-plate K there is a lug M, which forms the seat upon which rests the conical cup-shaped lug *j* of the reach-brace J, and this lug M has a conical recess *m*, extending upward from the center of its under side, into which the projecting conical part *n* of a supplemental reach-brace N is seated, and a hole extends through the lug M and the conical projection *n* for the king-bolt, which passes through them. The rear end of the brace N is secured to the reach-brace *c*, extending from the upper plate A, and to the brace J by means of a bolt *d*, passing through these parts and rigidly holding them together on the reach.

It will thus be seen from this construction of a fifth-wheel and the elements connected with it that should the king-bolt D become worn or broken and drop out of its position, or be displaced by any cause whatever, the conical projection C, extending downward from the upper plate and being received in a depending conical socket *f* of the lower plate and its lower end in a recess in a lug on the end of the reach-brace J, and these parts resting upon the lug M of the lower plate K and being bound thereto by the reach-braces, will be firmly and securely held together as against all liability of accident or separation of the axle from the body of the vehicle, and thus overcome a long-felt need of security in this part of the vehicle, which so often wears away, and, becoming insecure, finally causes an accident and injury to the occupants of the vehicle.

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

1. In the fifth wheel of a vehicle, the combination with the upper and lower plates, of a frusto conical projection depending from the rear portion of the upper plate, a depending conical socket on the rear side of the lower plate and a brace extending from beneath the reach, having a lug on its front end upon which the said socket of the lower plate rests, said lug having a conical recess in its upper surface, the conical socket and recess of the lug receiving the projection of the upper plate, and a bolt through the center of the said conical projection and lug securely binding the parts together, as and for the purpose set forth.

2. In the fifth wheel of a vehicle, the combination with the upper and lower plates, of a brace integral with the upper plate secured to the reach, a conical projection depending from the rear of the upper plate, a depending conical socket on the rear side of the lower plate having a flat vertical flange on its front side for supporting the axle bed, a reach brace having an upwardly extending lug on its front end upon which said socket rests, and a conical recess in the upper side of said lug, and a plate beneath the axle having a lug supporting the front end of the reach brace, and said parts being bound together by a bolt through the depending projection of the upper plate, the lugs of the reach brace and axle plate, as and for the purpose set forth.

3. In a fifth wheel for vehicles, the combination with the upper and lower plates, of a brace integral with the upper plate, secured to the reach, a conical projection depending from the rear of the upper plate, a depending conical socket on the rear of the lower plate having a flat vertical flange on its front side in contact with the axle bed, a reach brace having a lug on which the said socket rests and a conical recess in the upper side of said lug, an axle plate beneath the axle, having a concave upper surface to receive the axle, said plate having a lug on its rear side supporting the front end of the reach brace and a conical recess on its under side, and a supplemental reach brace having a conical lug on its front end fitting into the recess of the lug of the axle plate, all of said braces being secured to the reach and the parts held together by the conical projections in the conical sockets and recesses, as and for the purpose set forth.

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

LEWIS BURG.

Witnesses:
G. C. HAWLEY,
H. R. VAN VLACK.