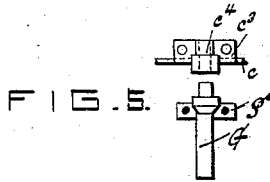
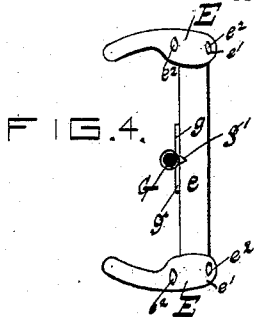
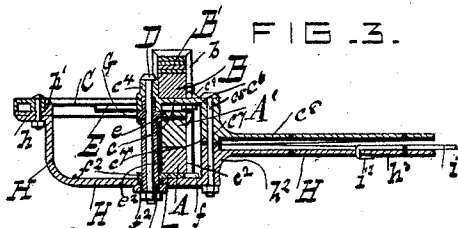
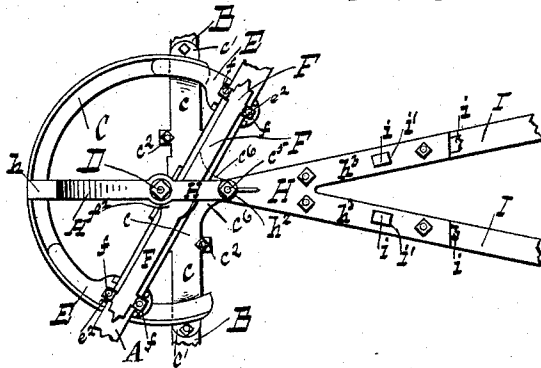
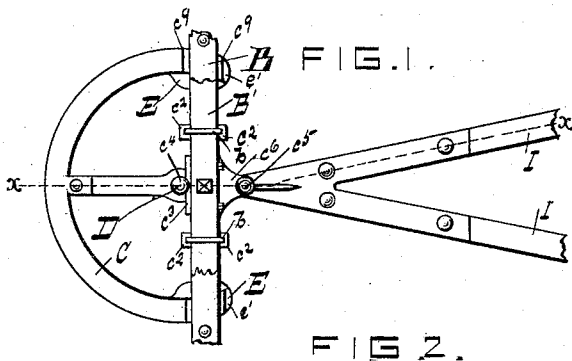


(No Model.)

C. GUSSETT.
VEHICLE GEAR.

No. 469,445.

Patented Feb. 23, 1892.



Witnesses

by Frank J. Davis.
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4
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UNITED STATES PATENT OFFICE.

CHARLES GUSSETT, OF CINCINNATI, OHIO.

VEHICLE-GEAR.

SPECIFICATION forming part of Letters Patent No. 469,445, dated February 23, 1892.

Application filed July 24, 1891. Serial No. 400,560. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GUSSETT, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Vehicle-Gears, of which the following is a specification.

My invention relates to vehicle running-gears, and particularly to the fifth-wheel and means connected to it for coupling the axle to the bolster. Its object is to provide a simple, strong, and durable fifth-wheel device and means for coupling it to the gear, whereby the wear and friction in this class of devices is reduced to a minimum and the strain upon each part equally distributed. These objects I attain by the means illustrated in the accompanying drawings, in connection with which the invention will be first fully described, and then particularly referred to and pointed out in the claims.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a plan view of my device. Fig. 2 is an inverted plan view of the same with the front axle turned at an angle to the head-block or bolster. Fig. 3 is a longitudinal vertical section through line $x x$ of Fig. 1. Fig. 4 is a plan view of the front axle with the lower iron of the fifth-wheel secured upon it and the king-bolt bearing secured to the front of the axle-cap. Fig. 5 is a detail view in elevation of the parts of the king-bolt bearing separated.

Referring to the parts by reference-letters, A is the front axle; A', the axle-cap; B, the head-block or bolsters; B', a broken section of the customary spring, which is clipped upon the head-block to sustain the front end of the wagon-body. (Not shown.) These parts are of ordinary construction, and need not therefore be specifically described.

The upper member of the fifth-wheel has its gear-coupling connections formed integral with it. It consists of a segmental plate C, flanged or L-shaped in cross-section, which forms the upper track of the fifth-wheel. This track-plate has cast integral with it the bar c , which crosses the ends of the segment and terminates in perforated ears c' , which

receive bolts that pass through these ears and the head-block and receive tightening-nuts upon the under side. It has also laterally-projecting lugs c^2 to receive the screw-threaded ends of the clip-bolts b , which secure the spring B' upon the head-block and assist to secure the track-plate bar c underneath it. Forwardly the bar c has an upwardly-projecting angle-flange c^3 , with a tubular boss c^4 in front of it to receive the king-bolt D. The bar c has also a rearwardly-extending lug-plate c^6 terminating in a downwardly-extending perforated boss c^7 , from the lower end of which the reach-irons c^8 extend rearwardly. The segment C has upward projections c^9 upon each side of the bar c to form seats for the head-block B.

The lower member of the fifth-wheel device consists of the segmental plates E E, which are united by the transverse plate e . The enlarged ends e' of the segments E have semi-circular perforations countersunk upon the upper side to receive the heads of the bolts e^2 , the flat sides of which bear against each side of the axle and cap. The lower ends of these bolts, which are circular and screw-threaded, pass through lugs f , which project laterally from a plate F underneath the axle and have tightening-nuts to hold the segments firmly in place. The plate F has also a forwardly-projecting perforated lug f^2 to receive the lower end of the tubular king-bolt bearing G, which has laterally-projecting perforated lugs g to receive bolts which pass through them and the axle-cap to hold the bearing in place. This bearing G has a V-shaped rear extension g' to enter a corresponding notch cut centrally in the edge of the transverse bar e , so that no measuring is required to truly center the king-bolt bearing.

The parts above described are braced by a single casting H, which forms the support for the outer part of the segment C and the lower plates for supporting the reaches I. This brace is secured underneath the plate F by the king-bolt and the bolt c^5 . It extends forward and curves upward to the plate C, which has a downwardly-extending perforated boss which rests upon the horizontal part h , the forward end of which is seated in a notch in the flange of the segment C. This, with the

upwardly-extending lip h' and the bolt passing through the perforated boss and part h , securely braces the upper fifth-wheel member C. In rear of the axle the piece H has an upwardly-extending boss h^2 , which meets the boss c^7 . The perforation in both bosses register to receive the bolt c^5 , which will hold the fifth-wheel members together, even should the king-bolt break or its nut be worked off in use. From the upper rear portion of the boss h^2 the reach-supporting part h^3 extends rearwardly in the present instance. The reach-supports are bifurcated for use with a double perch or reach or two reach-bars I I. The lower part of the half-boxes are transversely slotted to pass the ends of the reach-straps i . The forward ends of these are first turned downward at a right angle to enter the slots in the part h^3 , and after the parts are secured together these projecting ends are turned down upon the bottoms of the brace-supports, as seen at $i' i'$, to serve as an additional security and relieve the reach-securing bolts from strain.

The lower part G of the king-bolt bearing has a collar below its reduced upper end, and the part c^4 is bored out to receive the upper end of the part G. (See Fig. 5.) These tubular parts will thus serve the purpose of a king-bolt should the bolt D be absent.

What I claim is—

1. In a running-gear for vehicles, the combination of the upper fifth-wheel segment C, the ends thereof connected by transverse bar c , upwardly-extending tubular extension c^4 , and downwardly-projecting tubular extension c , and reach-supports c^8 , the lower fifth-wheel member composed of segments E E, united by bar e , the brace H, having forward extension to support the segment C, tubular extension h^2 , and reach-supports h^3 , the king-bolt bearing G, king-bolt D, and bolt c^5 to hold the parts together, substantially as shown and described.

2. The combination of the upper fifth-wheel member C, L-shaped in cross-section and having the cross-bar c , tubular parts $c^4 c^7$ and reach-supports c^8 cast integral therewith, the lower fifth-wheel member consisting of the segments E E, the bar e , connecting said segments, said segments having semicircular countersunk perforations, the clip-bolts e' for securing said bar upon the axle, the brace-bar H, having forward extension with seats $h h'$ for the segment C to rest upon, and the tubular extensions h^2 and reach-supports h^3 , the plate F, having laterally-extending perforated lugs f to receive the clip-bolts and f^2 to receive the king-bolt bearing, the king-bolt bearing G, having its lower end within the lug f and its upper end within the part c^4 , and the bolts D c^5 for securing the parts together, substantially as shown and described.

3. The combination of the head-block and axle, the fifth-wheel member composed of the segment C, connecting-bar c , secured underneath the head-block and having the tubular extensions $c^4 c^7$ and lugs c' , and the reach-supports c^8 , made in a single piece, the lower fifth-wheel member consisting of the segments E E, bar e , the king-bolt bearing G, secured in front of the axle, the clip-bar F, having perforated lugs f for the clip-bolts and the perforated lug f^2 for the bearing G, the brace H, having forward bracket-extension to support the segment c , rearward extension h^3 to form reach-supports, and the perforated boss h^2 , said rearward extension being slotted, the reaches I, the reach-straps i , having their forward ends passed through the perforations in the parts h^3 and turned over, as at i' , and the bolts D and c^5 , combined and arranged substantially as shown, and for the purpose set forth.

CHARLES GUSSETT.

Witnesses:

GEO. J. MURRAY,
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