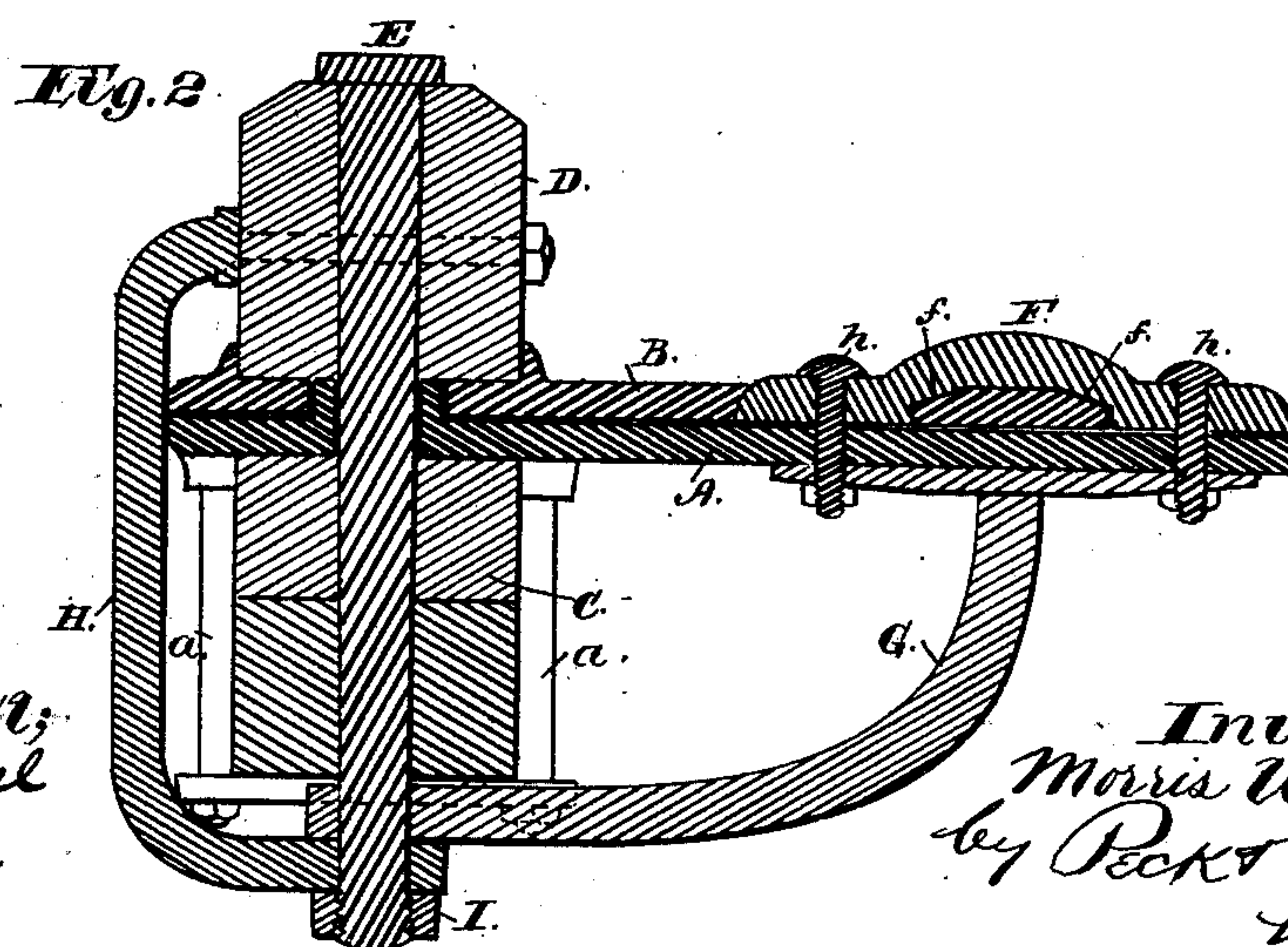
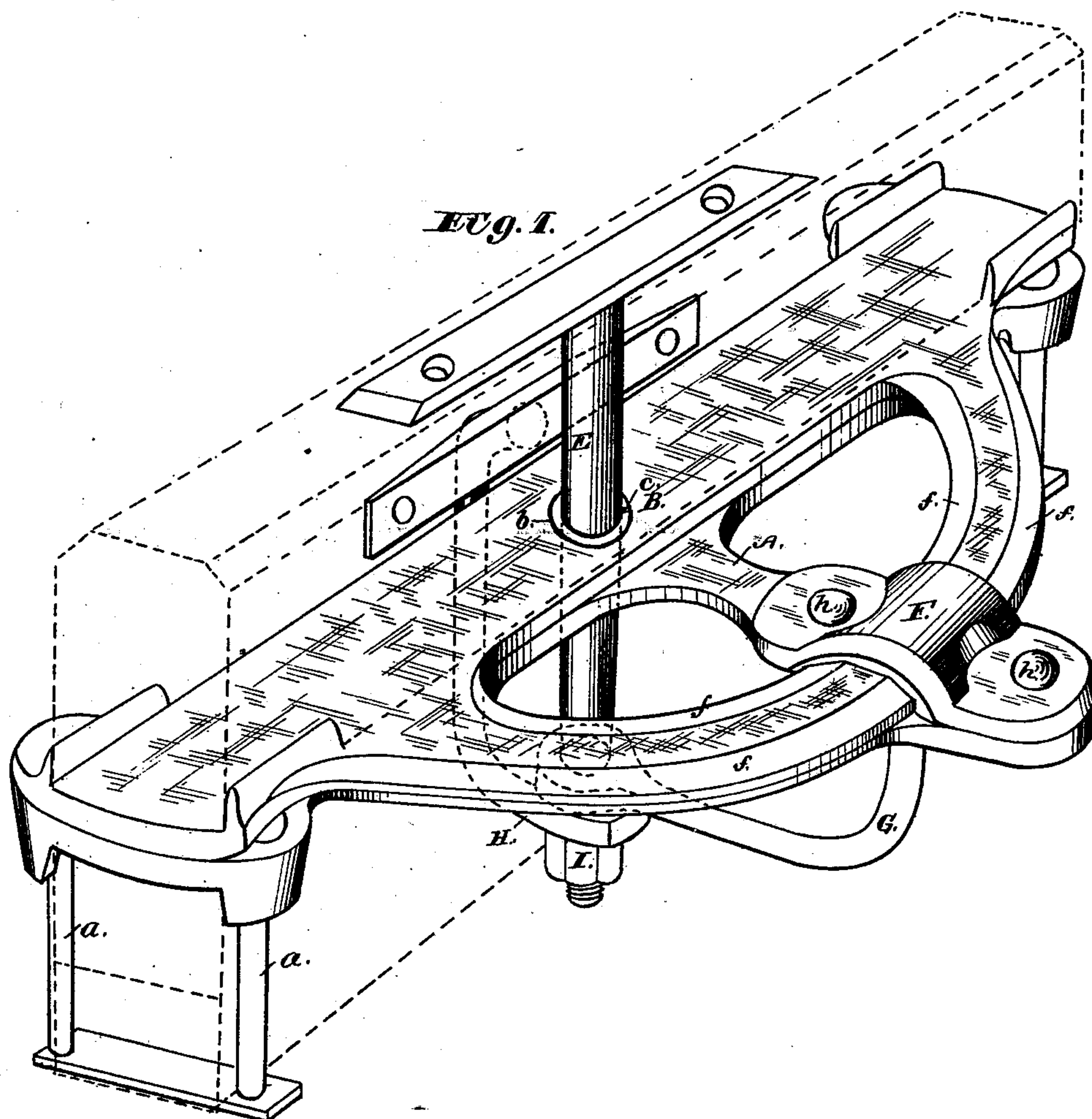


(No Model.)

M. WOODHULL.  
Fifth Wheel for Vehicles.

**No. 235,325.**

**Patented Dec. 7, 1880.**



Attest;  
P. H. Gunkel  
C. H. Taylor

*Inventor;  
Morris Woodhull  
by Peck & Ritchie  
his Attys;*



# UNITED STATES PATENT OFFICE.

MORRIS WOODHULL, OF DAYTON, OHIO.

## FIFTH-WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 235,325, dated December 7, 1880.

Application filed September 27, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS WOODHULL, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and  
5 useful Improvements in Fifth-Wheels for Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improvement in  
10 fifth-wheels for vehicles; and my object is to provide a simple, durable connection of the parts, to insure strength, and to prevent the breaking, springing, or warping of the pivotal axis, which is the king-bolt.

15 My invention is designed for any class of vehicles which dispenses with the perch, and the novelty consists in a **D** fifth-wheel in combination with an ordinary king-bolt, said wheel and bolt being braced and secured by a rear  
20 brace connecting the bolster and king-bolt, and a combined tie cap and brace connecting both plates of the fifth-wheel with the king-bolt in such a manner as to prevent breakage, springing, or warping of any of the parts, as  
25 will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved fifth-wheel. Fig. 2 is a central sectional view of the same  
30 in side elevation.

My fifth-wheel is of that class known as "**D**-wheels," and it is composed of two plates, A and B, of which the former is secured to the axle C of the vehicle, and the latter to the  
35 bolster D.

The plate A, which is secured upon the axle by bolts *a* in the usual or any suitable manner, has its upper surface perfectly flat and with its semicircular extension projecting upon the  
40 front side of the axle, as shown. This plate has an aperture through it surrounded by an upwardly-extending boss, *c*, for the passage of the king-bolt E, which is of the shape indicated.

45 The plate B, whose under surface is flat, is bolted to the bolster D, in any suitable manner, directly over the plate A, upon which it bears. This plate has an aperture, *b*, through it to receive the boss *c* of the plate A, and it  
50 is shaped like the letter **D**, as seen in Fig. 1. The edges of its curved portion are beveled,

as shown at *f*. Each plate is provided with ears at its corners, which bear against the sides of the axle and bolster, respectively, to aid in holding them securely to their places.

A cap or bearing tie, F, fits over the curved  
51 portion of the plate B, and is secured by bolts *h*, which pass down through the plate A and through the T-head of a curved brace-rod or arm, G, which, extending from directly under  
60 the tie-cap F, has its inner shouldered and perforated end encompassing the projecting end of the king-bolt directly under the axle, as shown.

Upon the rear side of the bolster is bolted  
61 a second T-headed brace-rod or arm, H, of the shape indicated, which, passing down, is curved forward to receive the king-bolt, which passes through an eye formed in its shouldered end, which end is directly under the end of  
70 the brace G, as seen in Fig. 2.

A nut, I, upon the lower end of the king-bolt, locks the braces and completes the construction.

From this description it will be observed  
71 that any tendency of the two plates to slide upon each other, in contradistinction to their turning as fifth-wheels naturally turn, is prevented by the pivotal boss upon the one plate entering a corresponding aperture in the other.  
80 Also, that any tendency of the bolster to tilt upon the axle, or vice versa, is prevented by the front and rear braces and the tie-cap. Also, that all parts are so equally sustained and braced that the king-bolt is almost entirely  
85 relieved of any other function than that of a pivotal axis.

I do not desire to limit myself to the precise construction herein shown, as in light vehicles the boss *c* may be dispensed with. The shape  
90 and construction of the front and rear braces might also be varied to suit the character of the vehicle; but,

Having thus fully described my invention, I claim—  
91

1. A fifth-wheel connecting the bolster and axle of a vehicle whose king-bolt or pivotal axis is braced and secured by a combined tie-cap and front brace, uniting the fifth-wheel and king-bolt just beneath the axle, and a rear  
100 brace uniting the bolster and king-bolt just beneath the axle, whereby breaking, spring-

ing, or warping is prevented, substantially as specified.

2. The herein-described fifth-wheel, consisting of the plates A and B, one of which has a pivotal boss entering a corresponding aperture in the other, the king-bolt E, the tie-cap F, front brace, G, rear brace, H, and nut I, the parts being relatively arranged and united in

the running-gear of a vehicle substantially in the manner and for the purpose specified. 10

In testimony whereof I have hereunto set my hand.

MORRIS WOODHULL.

Witnesses:

JAMES LINDEN,

CHAS. M. PECK.