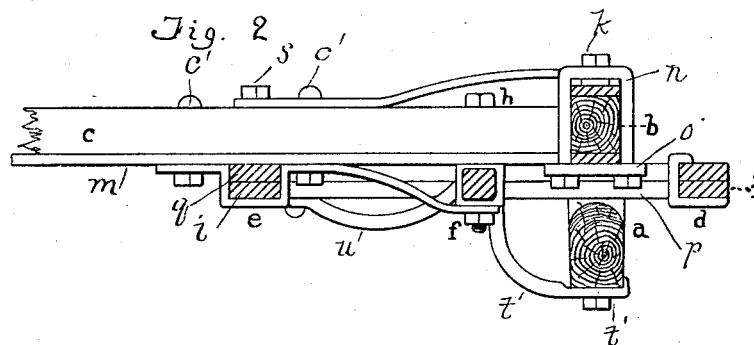
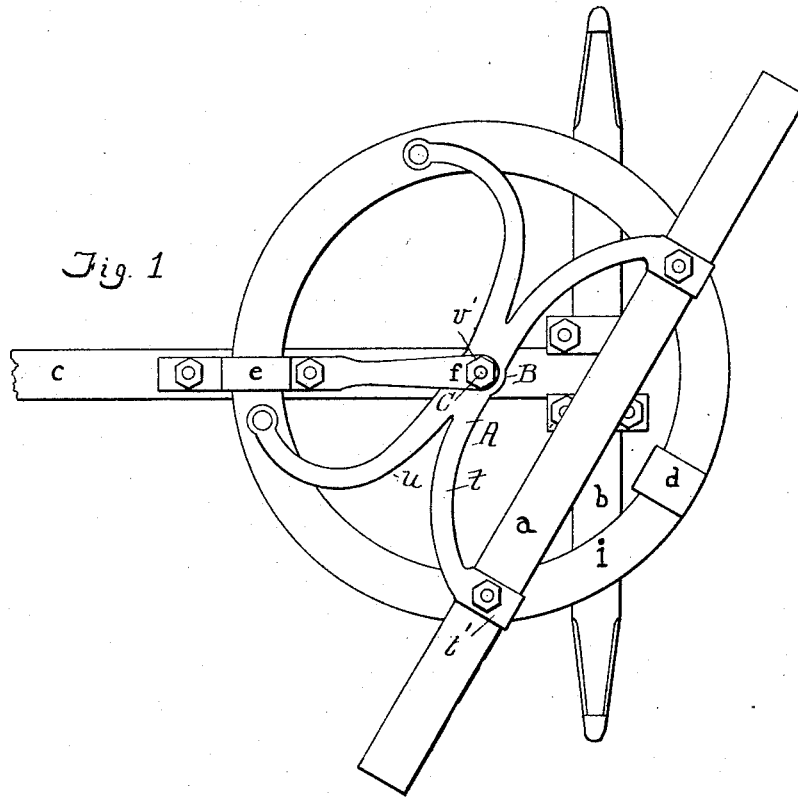


(No Model.)

S. HIGDON.  
FIFTH WHEEL.

No. 302,486.

Patented July 22, 1884.



WITNESSES:

J. R. Sanborn  
J. W. Magrath

INVENTOR

Samuel Higdon

J. C. Higdon  
ATTORNEY

# UNITED STATES PATENT OFFICE

SAMUEL HIGDON, OF GENTRYVILLE, MISSOURI.

## FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 302,486, dated July 22, 1884.

Application filed October 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL HIGDON, a citizen of the United States, residing at Gentryville, in the county of Gentry and State of Missouri, have invented certain new and useful Improvements in Vehicle-Couplings and Fifth-Wheels; and I do 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, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to fifth-wheels for vehicles; and it consists in the improvements hereinafter described and set forth.

In the accompanying drawings, forming part of this specification, Figure 1 is an inverted plan of a fifth-wheel constructed in accordance with my invention, and Fig. 2 is a longitudinal section through the reach.

*e* is the reach or bolster, which is secured at its front end to the head-block *b*.

*h* is a brace, which is secured at its rear end on the upper side of the reach and at its front end to the upper side of the head-block *b* by means of a bolt, *k*. A metallic plate, *m*, is bolted on the under side of the reach, and is provided integrally with side extensions, which rest on the under side of the head-block and are bolted thereto. Yoke-bolts *n* clamp the leaf spring or springs on the upper side of the head-block, and are secured by means of plates *o*, having perforations through which the threaded ends of the said yoke-bolts pass, and are secured by nuts *p*. A ring-platform, *q*, is bolted at its rear portion to the reach by means of the bolt *s* and at its sides by a bolt passing through the end portions of the head-block.

A spider-frame, *A*, consisting of the front arms, *t*, and rear arms, *u*, has a hub, *B*, at its center, perforated for the passage of the king-bolt *C*, the front end of a curved brace, *f*, being perforated, and resting beneath the said hub *B*, so that it can contribute to the support of said hub by reason of the king-bolt passing through said brace, the hub, and through the reach, and secured by a nut, *v*.

The brace *f* is bent to form a depending loop,

and is perforated at each side of the said loop to permit the passage of securing-bolts *c'*, to secure the said brace to the reach at either side of said loop.

The front arms, *t*, of the spider-frame are bent so as to bear against the under side of the axle, and are flattened, bent, and perforated to form a head, *t'*, through which a securing-bolt passes, and a lip to engage the front face of the axle. The arms *u* extend rearwardly in a higher plane than the arm *t*, and are flattened and perforated to form heads, which are bolted to the lower ring-platform, *i*, a short distance at either side of the loop *e*. The bolts which pass through the heads *t'* of the arms *t* also bolt the ring-platform *i* to the axle. The ring-platform *i* registers with the platform *q*, as shown in Fig. 2, and the said platforms are suspended by passing through the loop *e*, as shown in Fig. 2. A clip, *d*, secured to the under side of the ring *i*, extends up and over, so as to embrace the platform *q* and guide the same with regard to the said platform *i*.

From the foregoing description it will be apparent that the pivotal center of the fifth-wheel is arranged at the rear of the axle, instead of immediately above the same, as heretofore, thus obviating the necessity of arranging the parts so as to project beyond the front of the axle. Moreover, the spider-frame furnishes an efficient means for connecting the lower ring-platform with the axle and pivotal bolt, and at the same time the connection of the rear arms, *u*, is such that in the movements of said lower platform, *i*, they act as stops by abutting alternately against the loop *e*.

By constructing the spider-frame of a single piece the same may be cheaply and readily produced by casting, and, what is more, a single bolt-perforation is only necessary to insure the pivotal connection of said spider-frame, so that the arms *t u* thereof may operate in different planes, re-enforce one another against strain, and result in each positively responding to any movement upon the part of the other, and thus insure the effective operation of the fifth-wheel.

The form and arrangement of the brace *f* enable the same to serve as a brace for the spider-frame and as a suspending means for the rear portions of the platforms.

I claim—

1. The combination, in a fifth-wheel, of the  
ring-platforms secured, respectively, to the  
reach or head-block, as described, and to the  
5 axle by means of the pivoted spider-frame,  
consisting of a single piece of metal, and hav-  
ing its arms arranged in different planes, as  
specified, a loop supporting the ring-platforms  
at the rear, and the rear arms of the spider-  
10 frame connected to one of the platforms to  
abut against the said loop when the ring moves,  
substantially as set forth.

2. The combination, in a fifth-wheel, of the  
ring-platforms secured, respectively, to the  
15 reach or head-block, as described, and to the  
axle by means of the spider-frame, consisting

of a single piece of metal, and having its arms  
arranged in different planes, as specified, a loop  
supporting the ring-platforms at the rear, and  
the rear arms of the spider-frame connected 20  
to one of the platforms to abut against the said  
loop when the ring moves, a clip secured to  
the under side of the front portion of one of  
the platforms to embrace and guide the other  
platform, substantially as set forth. 25

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

SAMUEL HIGDON.

Witnesses:

JOHN T. HAYNES,  
SILAS A. RIGGS.