

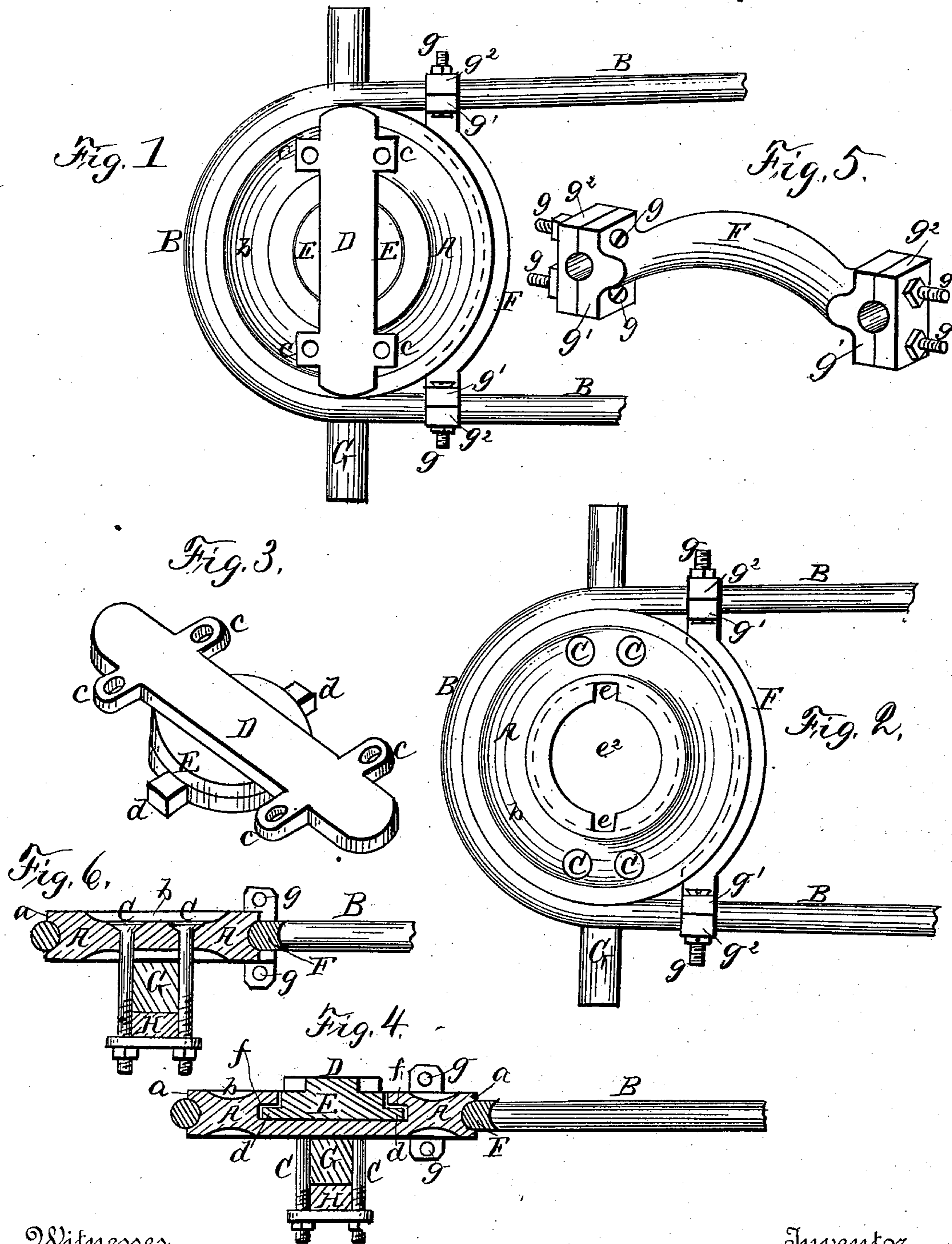
(No Model.)

G. M. BADGER.

FIFTH WHEEL.

No. 363,976.

Patented May 31, 1887.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE M. BADGER, OF QUITMAN, GEORGIA, ASSIGNOR OF ONE-HALF TO
WILSON C. McCALL, OF SAME PLACE.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 363,976, dated May 31, 1887.

Application filed April 20, 1887. Serial No. 235,574. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. BADGER, a citizen of the United States, residing at Quitman, in the county of Brooks and State of Georgia, have invented new and useful Improvements in Fifth-Wheels for Vehicles, of which the following is a specification.

My said invention relates to that class of fifth-wheels which seek to dispense with the king-bolt; and the object of my improvement is to furnish not only a simple construction, but such a construction as may be adapted to any style of buggy running-gear.

The general objects of this class of fifth-wheels being well known, it is only deemed necessary to particularly describe the construction.

In the accompanying drawings, Figure 1 represents a top view of the fifth-wheel and a part of the single curved perch; Fig. 2, a similar view with the spring-coupling plate removed; Fig. 3, a perspective detail of the spring-coupling. Fig. 4 is a vertical section. Fig. 5 is the reach-coupling bar, and Fig. 6 is a section through the axle-clip bolts.

The fifth-wheel proper, A, consists of a circular disk having a peripheral groove, *a*, Fig. 4, for the embrace and play of a curved reach or perch, B, the arms of which may either connect directly with the rear axle or with adjuvant wooden reaches in any suitable manner. The said disk A is clipped over bed and axle by bolt-clips C, so as to be a fixture, and the bolt-heads are sunk in a superficial circumferential groove, *b*, so as to admit of the play over them of a spring-coupling plate, D. (Shown in the perspective view.) This plate D is a rectangular bar equal in length to the diameter of the disk, and has four lugs, *c c c c*, to furnish a means of clipping it to the springs or to the spring-bars of the vehicle. It is also provided with a circular under hub, E, which has diametrically-opposite projections *d d*, two in number, which stand in the line of the perch and slip into corresponding recesses, *e e*, in the disk proper, which stand in the line of the axle. The disk has a central circular recess, *e*², to receive said circular hub E of the spring-coupling plate, and for confining it the circular disk A has a recessed

groove or guideway, *f*, in the walls of the circular recess describing a greater circumference beneath the walls of said recess to form a confining-way.

It will be seen that the plate D, being normally parallel with the axle, would have to describe the half of a circle before its projections *d d* could find release through the recesses *e e*, above mentioned, which are in positions opposite each other in a line parallel with the axle.

The curved reach B is kept in the groove of the disk A by a curved confining-bar, F, fastened by bolt-clips *g g* to each arm of the curved reach at that edge of the disk which stands between the reach-arms, and it fits into and conforms to the circumferential groove. These clips are formed by end castings, *g'*, of the confining-bar and similar separate caps, *g*², bolted to each other.

This construction may be used with side-bar vehicles, as well as others. All the parts of the fifth-wheel are preferably made of malleable iron.

The coupling-bar F completes the circle of the reach around the fifth-wheel disk and prevents the twisting and wrenching of the reach within its grooved seat in the disk, while the latter affords a bearing for the spring-coupling plate, so that the latter is not to be affected by the twisting of the reach. Moreover, should there be any wear in the grooved seating for the reach the cross-bar F can be set up to the disk upon the reach-arms. The disk is clipped directly to the head-block G and to the axle H at two points on opposite sides of the central connection of the spring-coupling plate, and the latter has a solid seating within and upon the disk, between the clip-bolts of the latter.

I claim—

1. The combination, with the axle and the curved reach, of a fixed plate-disk, A, having a peripheral groove, *a*, a recessed central opening, *e*², formed with diametrically-opposite recesses *e*, a curved confining-bar, F, conformable to said disk, and a coupling-plate, D, for the springs, having projections *c*, all constructed substantially as described, and arranged for operation as set forth.

2. The fifth-wheel disk A, having the central circular recess, e^2 , the guideway f , and the circumferential groove a , in combination with the plate D, having the circular part E d and the arms c , the coupling-bar F, conforming to the groove of the disk, and the bolts C C, arranged as described, for securing the disk at two points to the head block and the axle.
- 10 3. The combination, with the axle and the curved reach, of the grooved disk A, secured to the axle, the curved coupling-bar F, for se-

curing and bracing the curved reach to the grooved disk, and means for securing the disk to the vehicle springs, substantially as shown 15 and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE M. BADGER.

Witnesses:

W. B. BENNET,

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