

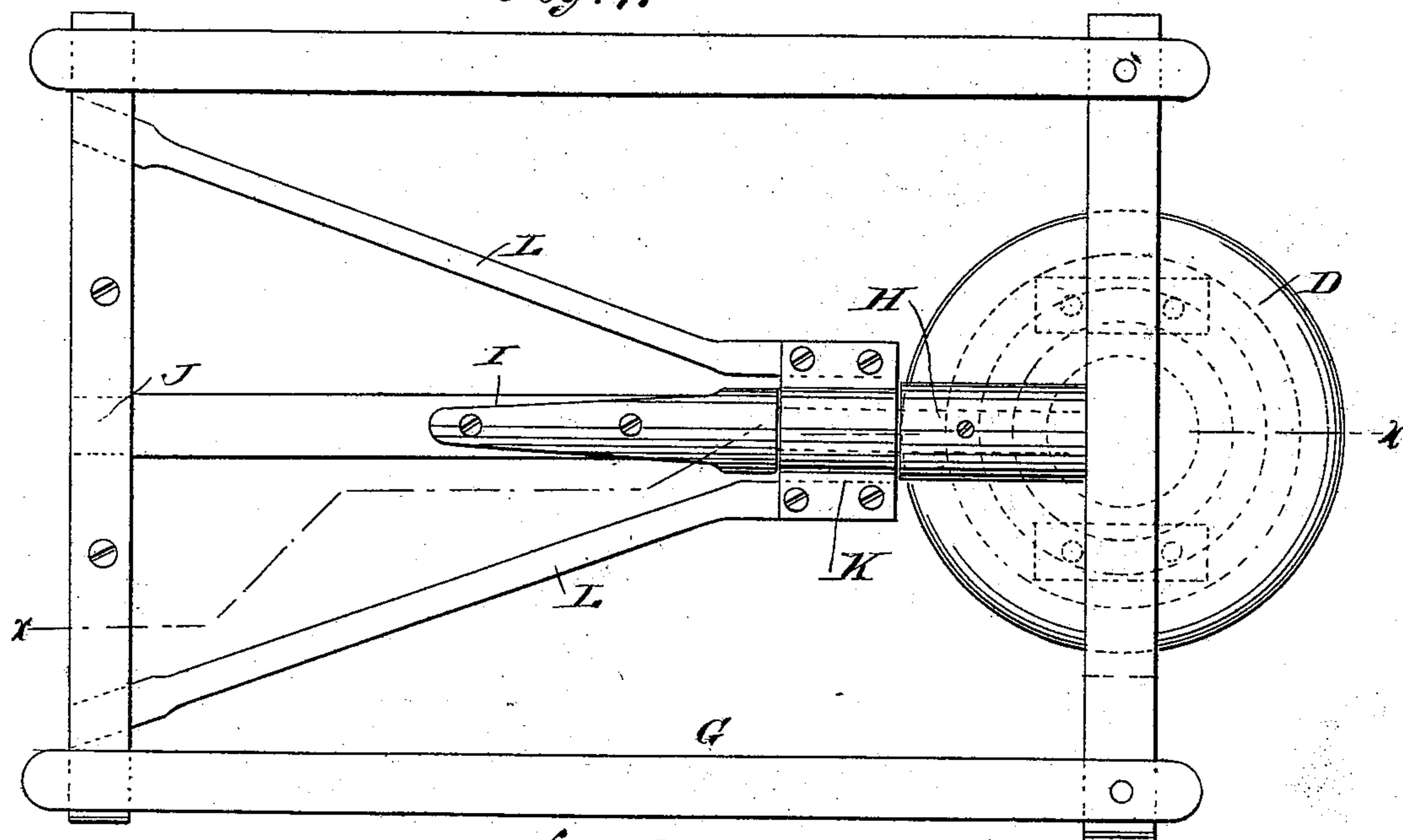
(No Model.)

J. W. TAYLOR.  
FIFTH WHEEL FOR VEHICLES.

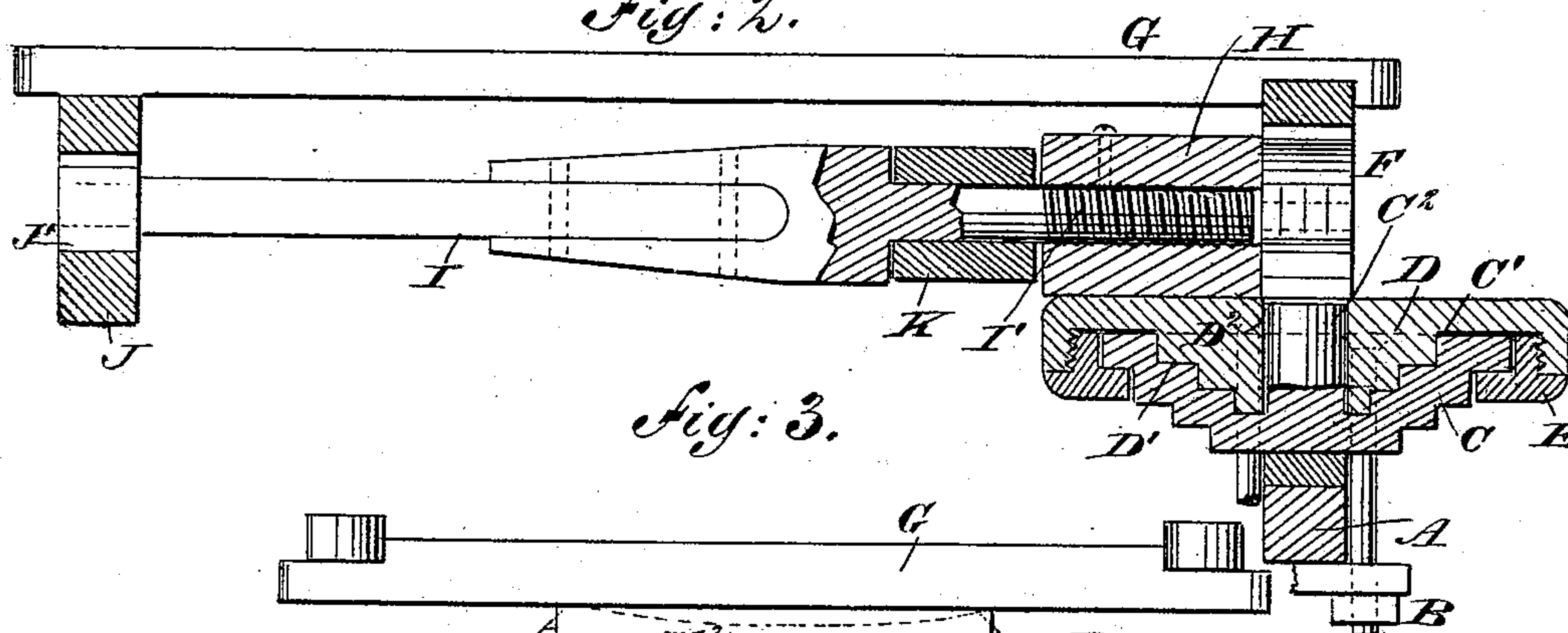
No. 472,834.

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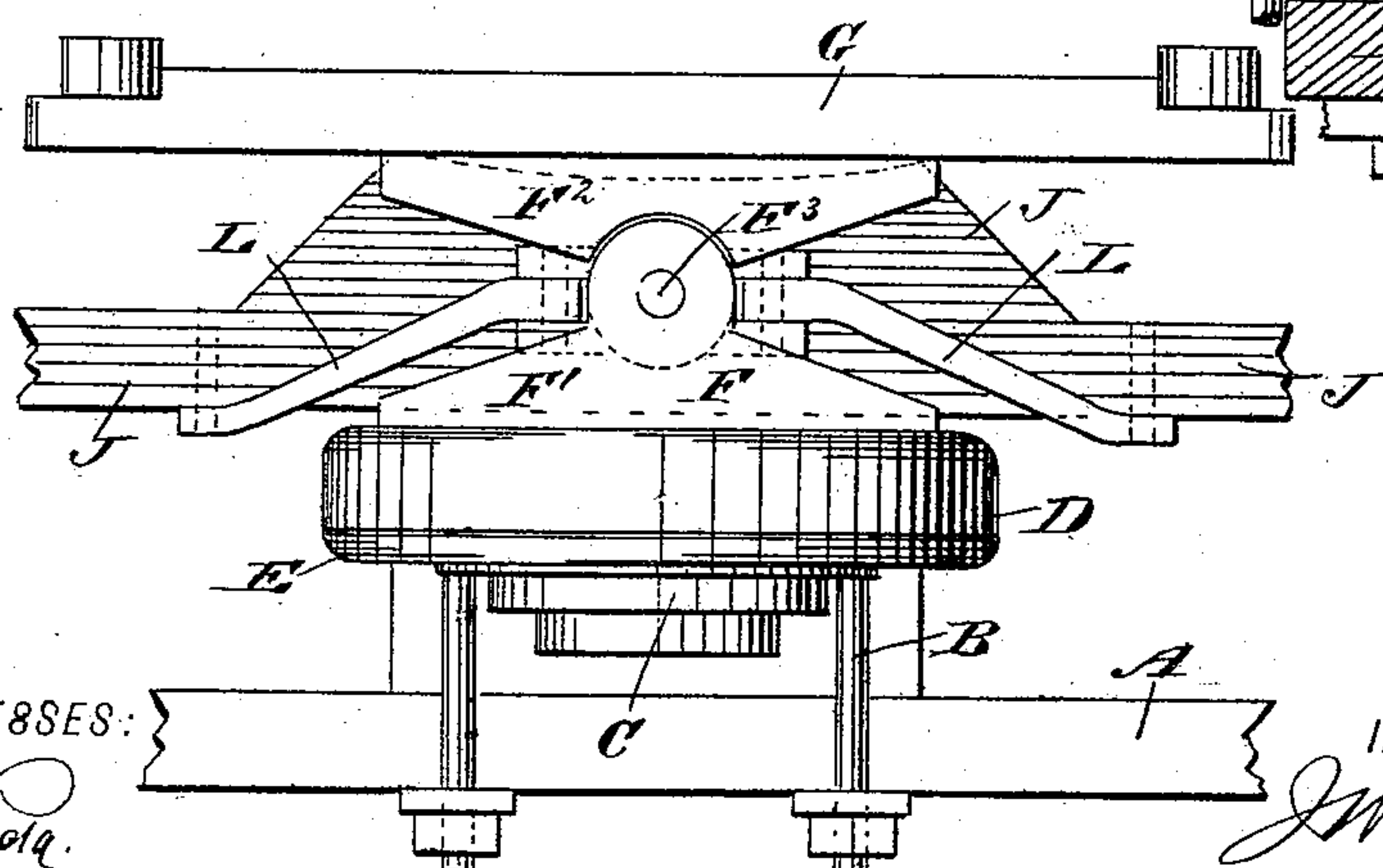
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



WITNESSES:

Chas. Viola.  
to Sedgwick

INVENTOR

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# UNITED STATES PATENT OFFICE,

JAMES WM. TAYLOR, OF VERMILLION, SOUTH DAKOTA.

## FIFTH-WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 472,834, dated April 12, 1892.

Application filed July 20, 1891. Serial No. 400,108. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES WM. TAYLOR, of Vermillion, in the county of Clay and State of South Dakota, have invented a new and Improved Vehicle-Coupling, of which the following is a full, clear, and exact description.

The invention relates to couplings for connecting the front axles with the bodies of buggies and carriages.

The object of the invention is to provide a new and improved vehicle-coupling which is simple and durable in construction, very effective in operation, relieves the fifth-wheel of all strain, and permits the front wheel to pass over obstructions without seriously affecting the wagon-body, thus insuring easy riding.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement. Fig. 2 is a sectional side elevation of the same on the line *xx* of Fig. 1, and Fig. 3 is a front view of the same.

The front axle A of the vehicle supports, by means of a clip B, a disk C, formed on the top with annular steps C', adapted to be engaged by corresponding steps D', formed on the fifth-wheel D, mounted to turn on the said fixed disk C. The latter is provided in its center with a pivot-pin C<sup>2</sup>, projecting into a corresponding recess D<sup>2</sup>, formed in the center of the fifth-wheel D. A collar E screws on or is otherwise fastened to the under side of the fifth-wheel D and is provided with a flange projecting under a flange of the disk C, so as to hold the disks D and C in position relative to each other, but permitting the one to turn on the other. The top of the fifth-wheel D is connected by a hinge F with the body G of the buggy or carriage, the said hinge consisting of a member F', arranged transversely and rigidly secured in the center of the fifth-wheel D on top, as is plainly illustrated in the drawings. A like member F<sup>2</sup> is fastened to the under side of the cross-bar of the vehicle-body, the two members F'

and F<sup>2</sup> being connected with each other by a pivot-pin F<sup>3</sup>. The top surface of part of the fixed member F' is inclined to the right and to the left, and a similar inclination is formed on the under side of the fixed member F<sup>2</sup>, so as to limit the swinging motion of the axle A relative to the wagon-body.

On top of the fifth-wheel D, in the rear of the fixed member F' of the hinge F, is secured a bearing H, engaged by a pivot-pin I', projecting from a reach-rod I, having its rear end journaled in a bearing J', supported on the rear axle J. The pivot-pin I' of the reach-rod I is screwed or otherwise secured to the bearing H, and part of the said pivot-pin is also engaged by a bearing K at the rear of the bearing H, the said bearing K being connected by draft-rods L with the rear axle J. The draft-rods diverge rearwardly, as is plainly shown in Fig. 1.

It will be seen that a vehicle-coupling constructed in this manner permits a convenient turning of the front axle relative to the wagon-body, and at the same time the fifth-wheel is relieved of all strain, and the front wheels, or either of them, when passing over obstructions in the road-bed do not affect the movement of the wagon-body, which remains horizontal, the axle A being free to swing on the pivot-pin F<sup>3</sup> of the hinge F.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a vehicle-coupling, the combination, with a fifth-wheel and a hinge connecting the fifth-wheel with the wagon-body, of a bearing on the fifth-wheel, a reach-rod having one end secured in said bearing and its rear end mounted to turn in a bearing on the rear axle, a bearing on the reach-rod, and draft-rods secured to the said bearing and to the rear axle, substantially as described.

2. In a vehicle-coupling, the combination, with a disk formed on its top with steps, of a fifth-wheel having a hinge connection with the body and provided on its under side with steps engaging the steps of the disk, and means for holding the fifth-wheel on the disk, substantially as described.

3. In a vehicle-coupling, the combination, with a disk formed on its top with annular rising steps, of a fifth-wheel formed on its un-



der side with steps engaging the steps of the said disk, and a collar formed with a flange and screwing on the said fifth-wheel to hold the latter in position on the said disk, substantially as shown and described.

4. In a vehicle-coupling, the combination, with a stepped disk clipped to the axle and provided in its center with a pivot-pin, of a fifth-wheel formed with steps engaging the steps of the said disk and having a central opening engaged by the said pivot-pin, and a hinge connection for connecting the said fifth-wheel with the wagon-body, the pivot of the said hinge extending longitudinally centrally above the said pivot-pin, substantially as shown and described.

5. In a vehicle-coupling, the combination, with a stepped disk clipped to the axle and provided in its center with a pivot-pin, of a fifth-wheel formed with steps engaging the steps of the said disk and having a central opening engaged by the said pivot-pin, a hinge connection for connecting the said fifth-wheel with the wagon-body, the pivot of the said hinge extending longitudinally centrally above the said pivot-pin, and a reach-

rod rigidly connected with the said fifth-wheel and having its rear end mounted to turn in a bearing on the rear axle, substantially as shown and described.

6. In a vehicle-coupling, the combination, with a stepped disk clipped to the axle and provided in its center with a pivot-pin, of a fifth-wheel formed with steps engaging the steps of the said disk and having a central opening engaged by the said pivot-pin, a hinge connection for connecting the said fifth-wheel with the wagon-body, the pivot of the said hinge extending longitudinally centrally above the said pivot-pin, a reach-rod rigidly connected with the said fifth-wheel and having its rear end mounted to turn in a bearing on the rear axle, and draft-rods rigidly connected with the rear axle and carrying a bearing at their front ends engaging the said reach-rod, substantially as shown and described.

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Witnesses:

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