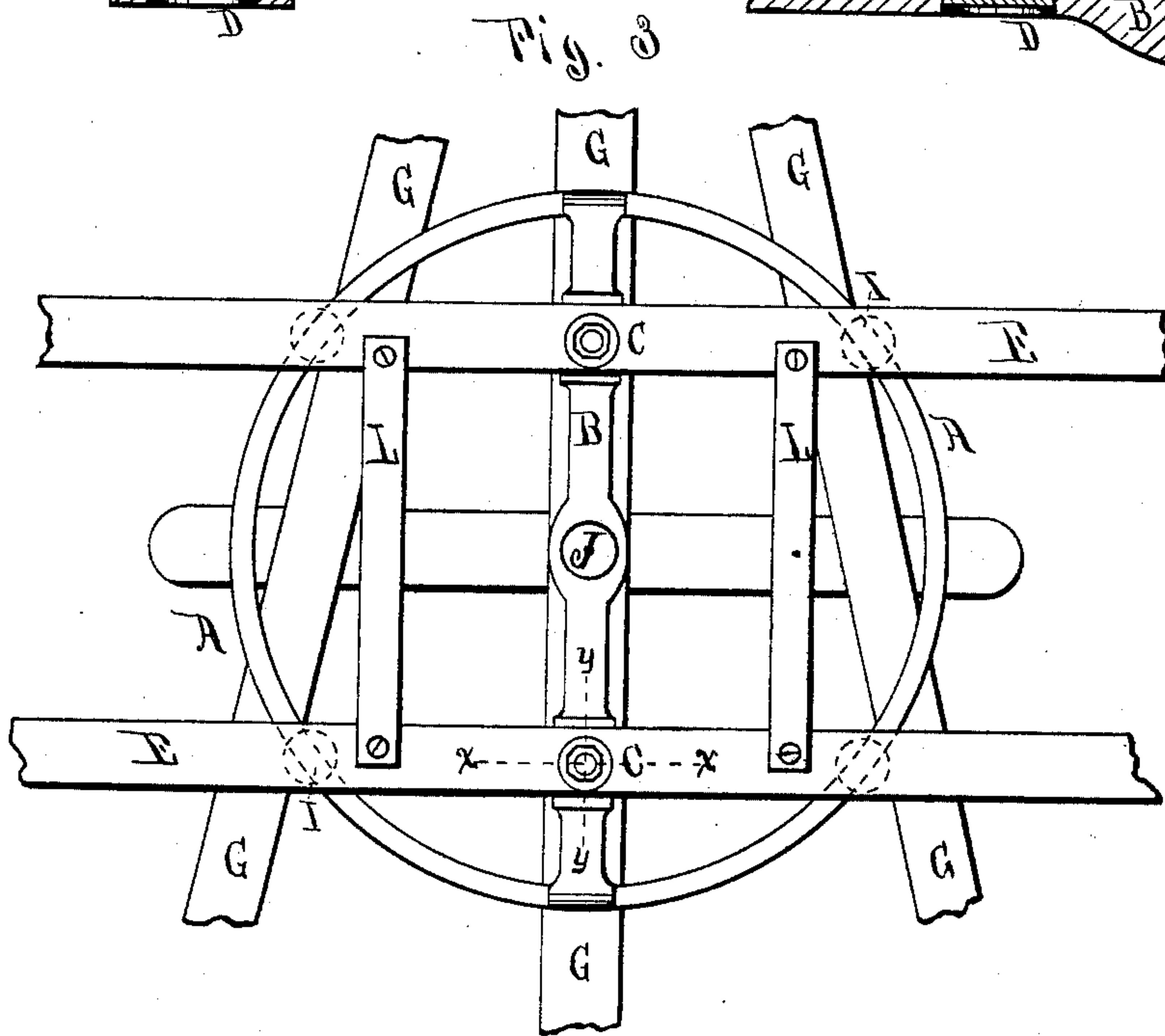
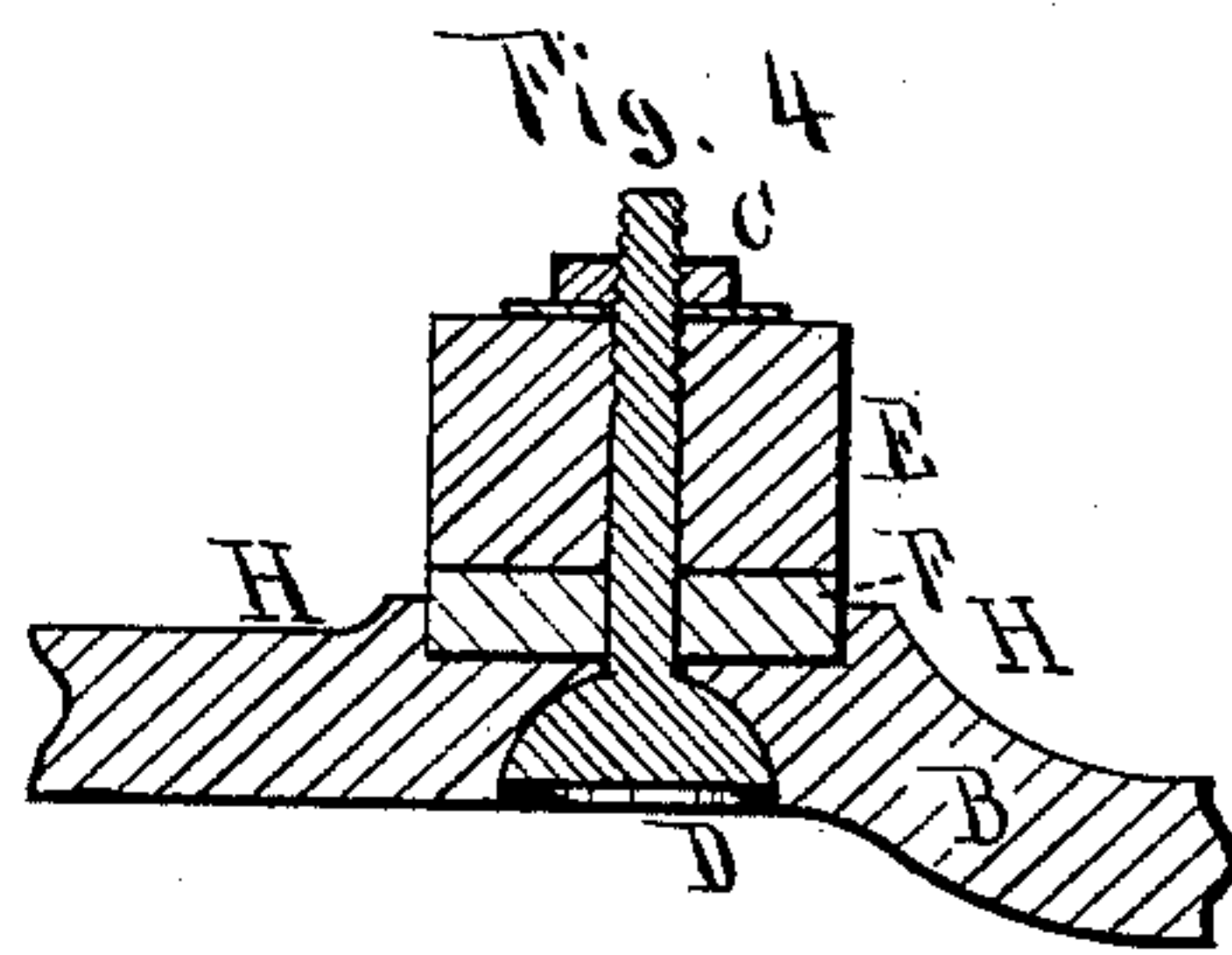
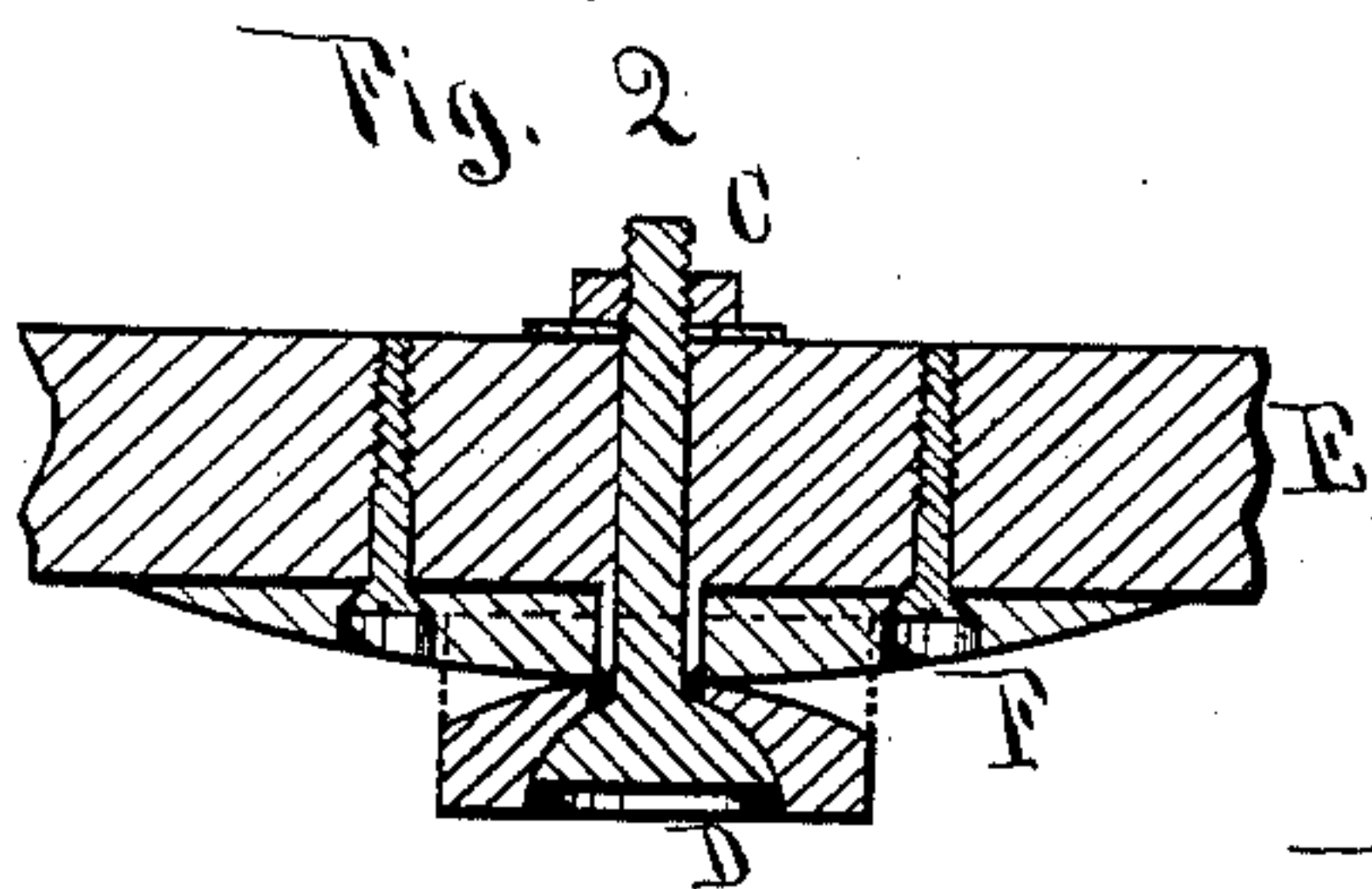
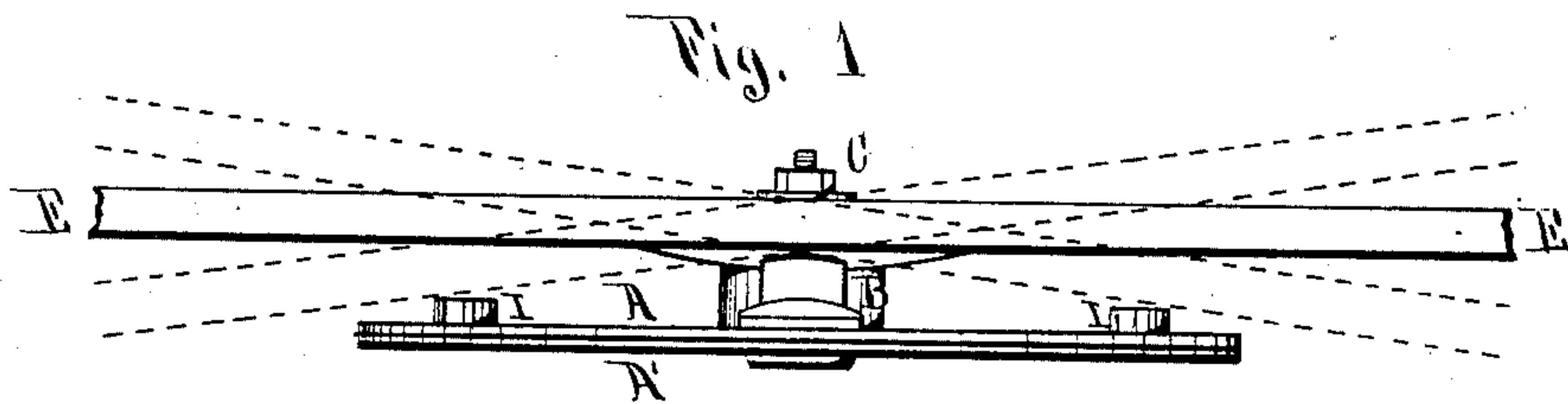


D. M. McMASTER.
Fifth-Wheel for Vehicles.

No. 223,001.

Patented Dec. 30, 1879.



Witnesses.

W. M. Peck, Jr.
A. R. Selden

Inventor.

D. M. McMaster,
by G. B. Selden,
att'y.

UNITED STATES PATENT OFFICE.

DAVID M. McMASTER, OF BATH, NEW YORK.

IMPROVEMENT IN FIFTH-WHEELS FOR VEHICLES.

Specification forming part of Letters Patent No. **223,001**, dated December 30, 1879; application filed May 26, 1879.

To all whom it may concern:

Be it known that I, DAVID M. McMASTER, of Bath, in the county of Steuben and State of New York, have invented certain Improvements in Fifth-Wheels for Vehicles, of which the following is a specification, reference being had to the annexed drawings, in which—

Figure 1 is a front elevation of my improved fifth-wheel. Fig. 3 is a plan view of the same; and Figs. 2 and 4 are respectively transverse and longitudinal sections on the lines *x x* and *y y*, Fig. 3.

My invention relates to an improved fifth-wheel for use in carriages or wagons constructed with platform-gearing; and its object is to allow of a slight lateral oscillation of the body of the vehicle without placing any undue strain on the springs.

It consists in an improved construction of the fifth-wheel and of the joints by which the upper circle thereof is pivoted to the bolsters supporting the wagon-body, the said joints being formed with convex bearing-surfaces on the bolster and fifth-wheel, and secured together by ball-headed bolts fitted to sockets in the fifth-wheel.

It also consists in providing the fifth-wheel or its cross-bar with lugs or projections, between which the rocker-plate is fitted, in order to prevent the strain from coming on the bolts.

My improved fifth-wheel is represented in the accompanying drawings.

A and A', Fig. 1, are respectively the upper and lower circles, constituting the bearing parts of the fifth-wheel, the lower circle, A', being attached to the platform G G, Fig. 3, in any usual or convenient manner. The platform G is connected by springs with the forward axle of the wagon in the usual way.

The upper and lower circles, A and A', are fastened together by a king-bolt, J, Fig. 3, passing through cross-bars connected, respectively, with each circle. The cross-bar B of the upper circle is provided, at or near the points where it joins the circle, with sockets D, Figs. 2 and 4, into which the heads of the bolts C C fit.

The cross-bar B of the circle may be enlarged at the sockets in order to secure strength.

The bolsters E E, which are secured to the under side of the wagon-body, are provided

with rocker-plates F, Figs. 2 and 4, which are fitted between the lugs H H on the cross-bar B. The rocker-plates are secured to the bolsters E E by bolts or screws, and their lower sides are so shaped as to permit of an oscillating or rolling motion through a short distance on the cross-bar B. The bearing-surfaces of the rocker-plates and the cross-bar are made convex for this purpose.

The bolts C C pass through the rocker-plate and bolster, and are secured above the latter by nuts and washers. The heads of the bolts are made spherical to fit the sockets in the cross-bar B.

I prefer that the sockets should reach nearly through the bar, strength being secured by the enlargement of the bar. The opening in the bar through which the body of the bolt C passes should be elongated slightly transversely to the length of the bar B, to permit the oscillating motion of the bolts.

The bolsters E E may be connected together by suitable braces L L, although these braces are not essential, as the bolsters E E are attached to and become a part of the wagon-body.

The lugs H H on the cross-bar B receive any longitudinal strains produced by the draft or irregular motion of the wagon-body, and relieve the bolts C C from such strains.

I prefer to make the bolts C C with heads of a spherical shape; but it is evident that bolts having cylindrical T-heads fitted to appropriate sockets may be substituted for the ball-headed bolts herein described.

It is also evident that the spherical head might be arranged to screw onto the body of the bolt.

I attach rubber springs or bumpers I I, Figs. 1 and 3, to the fifth-wheel or platform, in order to limit the oscillating motion of the bolsters.

The sockets D and lugs H H may be placed directly on the upper circle of the fifth-wheel. The circles may be made of malleable iron, with the sockets and lugs cast to a pattern, so as to require a minimum amount of labor in fitting up.

I am aware that it is not new to connect the body of a wagon to the upper circle of a fifth-wheel by a joint, permitting an oscillating mo-

tion of the wagon-body, and I do not claim anything contained in Patent No. 182,297.

I claim—

1. The combination of the circle A, provided with cross-bar B, and the rocking bolsters E, having rocker-plates FF, connected together by the ball-headed bolts C C, arranged to oscillate in the sockets D D, the rocker-plates and cross-bar having convex bearing-surfaces, substantially as and for the purposes described.

2. The combination of the circle A, cross-bar B, having sockets D D and lugs H H, ball-headed bolts C C, and the rocking bolsters E, substantially as and for the purposes described.

DAVID M. McMASTER.

Witnesses:

G. H. McMASTER,

G. E. McMASTER.