No. 791,247. PATENTED MAY 30, 1905.

G. J. CAWLEY.

SWIVELED COUPLING FOR VEHICLES.

APPLICATION FILED DEC. 30, 1904.

Fig 1.

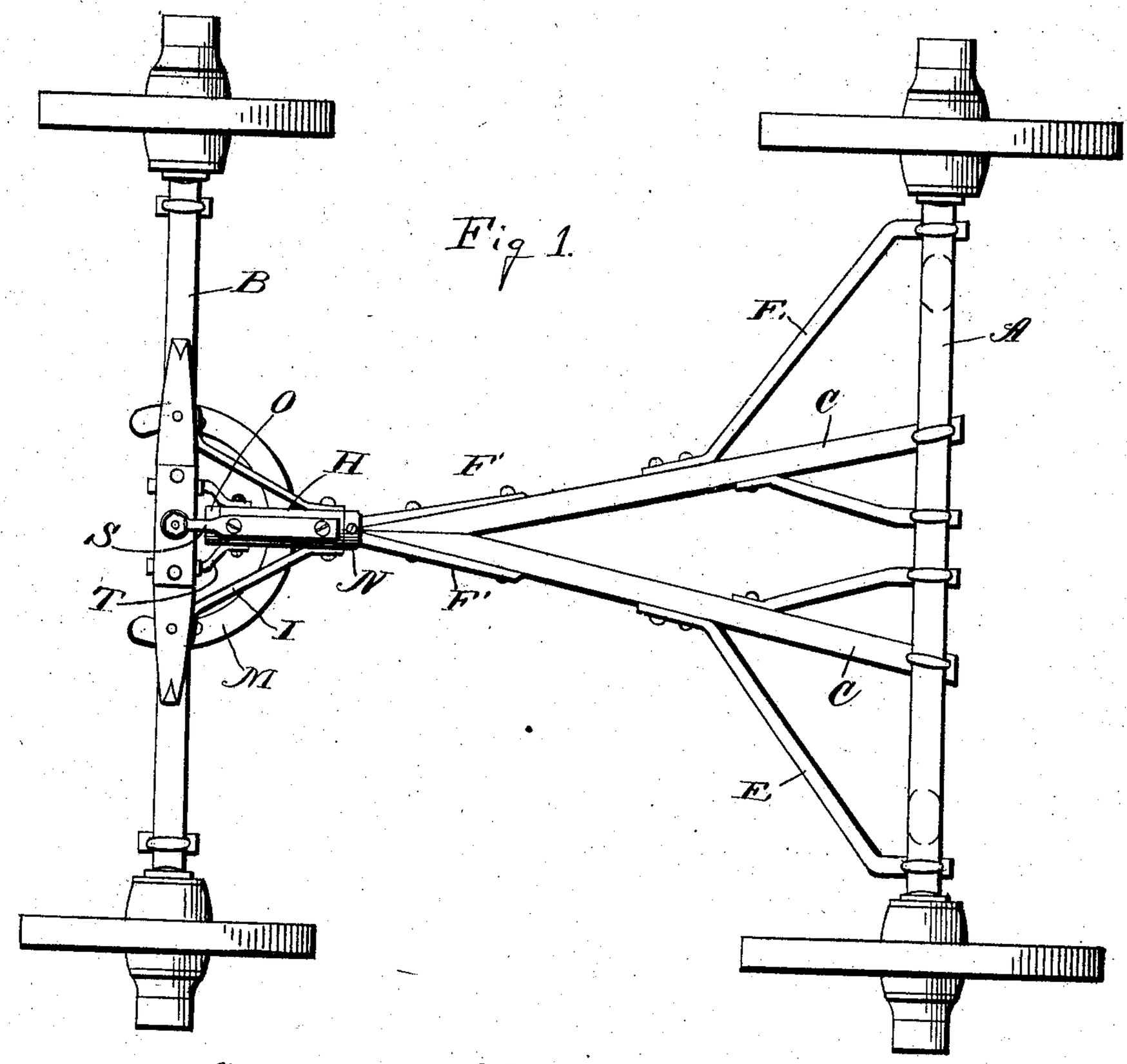
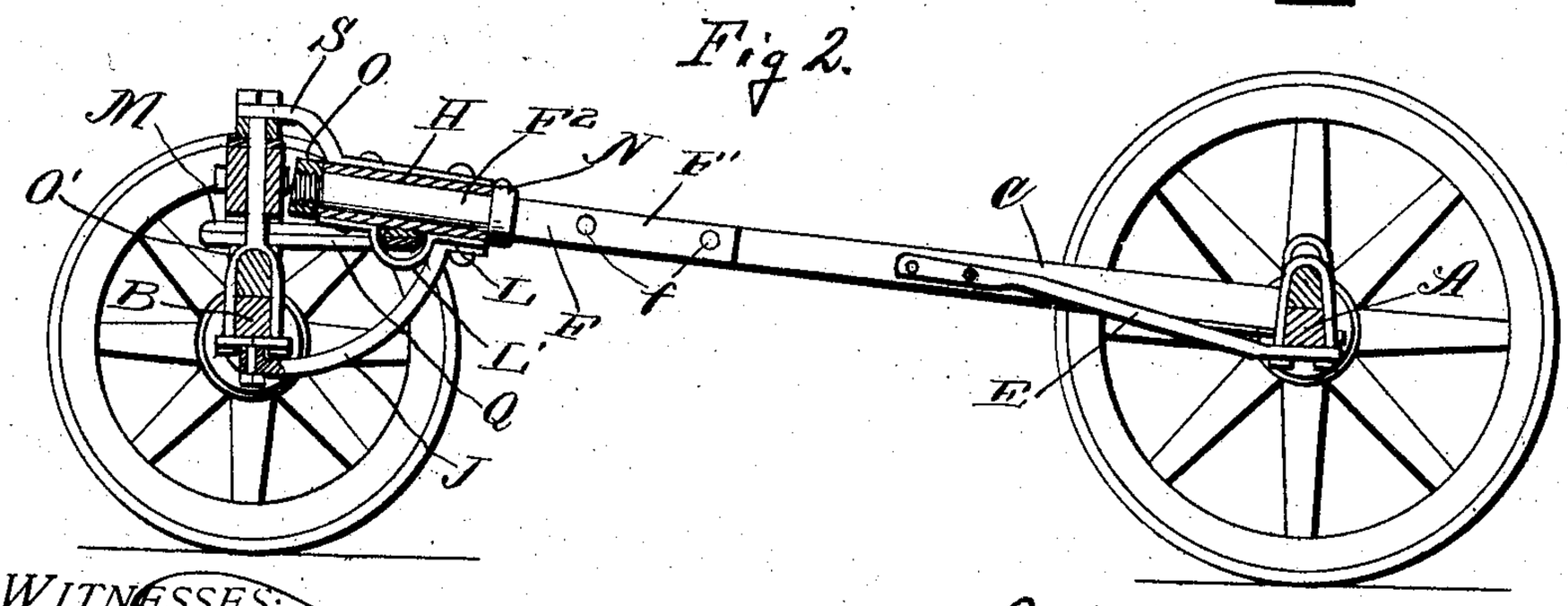


Fig 2.



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No. 791,247. Patented May 30, 1905.

UNITED STATES PATENT OFFICE.

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SWIVELED COUPLING FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 791,247, dated May 30, 1905.

Application filed December 30, 1904. Serial No. 238,960.

To all whom it may concern:

Be it known that I, GEORGE J. CAWLEY, a citizen of the United States, residing at Swansboro, in the county of Chesterfield and State of Virginia, have invented certain new and useful Improvements in Swiveled Couplings for Vehicles; 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 of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in running-gear for wagons; and the object of the invention is to produce a simple and efficient means whereby the sections of the reach may be swiveled one to the other, whereby the front or rear wheels of the running-gear may be tilted independent of one another; and more specifically the invention consists in the provision of a sectional reach one portion of which comprises a V-shaped section the end of which is adapted to fit a similar-shaped end of a metallic swiveled bearing upon which a hollow metallic cylinder is swiveled, which is secured to one section of the fifth-wheel, while suitable braces are carried by said cylinder and adapted to engage the bolster of the gear.

The invention consists, further, in various details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a top plan view of my improved running-gear. Fig. 2 is a horizontal sectional view through the swiveled connections of the reach.

Reference now being had to the details of the drawings by letter, A designates the rear axle of a gear, and B the front axle, mounted upon the wheels in the usual manner. Projecting from the rear axle are the two reach-bars C C, which converge and come together at their forward ends, thus securely bracing the rear axle. Additional braces E are provided which connect said inclined bars with the axle in the manner shown.

F designates a metallic swiveled member which is bifurcated at one end, having arms F′ conforming to the inclination of the forward meeting ends of said bars, which are adapted to be engaged by the arms, suitable bolts or screws *f* passing through the arms and bars, whereby the parts may be securely held together. The forward tapering ends of said bars contact with the bottom of the recess intermediate said arms of the swiveled member, as shown. H designates a hollow metallic cylinder, which is open-ended and is swiveled upon the solid shank portion F^2 of said member F, and a collar N is formed integral with said swiveled member F at the point from which said arms diverge and acts to limit the movement of said cylinder in one direction, while a nut O is fitted upon the threaded end of said shank portion and is adapted to hold the cylinder upon said swiveled shank portion. Q designates one section of a fifth-wheel, which is fastened by means of clevises O′ to the forward axle, and M designates the second section of the fifth-wheel, which is fixed to the under edge of the bolster upon the front axle and at its longitudinal center is fastened to the under portion of said metallic cylinder. A strap L is fastened to the under portion of said cylinder and has a loop L′, adapted to hold the two sections of the fifth-wheel together. A brace J is fastened at one end to the under portion of said cylinder and its other end is fastened to the king-bolt of the front axle or any other portion thereof in such a manner as to thoroughly brace the rear portion of said cylinder. Braces I are fastened at their rear ends to said cylinder at positions diametrically opposite, and their forward ends are secured to said bolster for the purpose of securely bracing the cylinder from lateral movement. A brace S is fastened to the upper part of the swiveled cylinder and its forward end is secured to the king-bolt, which secures

the bolster to the front axle. It will be observed that the forward end of the solid shank portion of the swiveled member F which receives the nut extends nearly to the bolster and that the nut upon the end of said shank portion turns freely in the space intermediate the ends of the cylinder and the bolster. In order to further strengthen and hold the cylinder in which said swiveled member turns, I provide the braces T, which are fastened near the forward end of said cylinder at positions diametrically opposite, while the other ends of the braces thus secured to the cylinder are passed through the bolster and are held by suitable nuts, as shown.

From the foregoing it will be observed that by the provision of the apparatus shown and described an efficient swiveled section-reach is provided for the running-gear of vehicles and so arranged that the cylinder in which the metallic swiveled member turns is thoroughly braced against strain in opposite directions and rests centrally upon the fifth-wheel, the under section of the latter being free to turn through the strap which is fastened to the cylinder in the manner shown and described.

A running-gear equipped with my invention may be drawn over uneven roads, and the front axle is allowed to tilt upon the swiveled connection independent of the rear wheels, and vice versa, and in such movements the parts being thoroughly braced will stand any strain which may come upon the parts.

While I have shown a particular construction of apparatus illustrating my invention, it will be understood that I may vary the same as to details, if desired, without in any way departing from the spirit of the invention.

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

A running-gear for vehicles comprising, in combination with a front and rear axle, a reach made up of two bars fastened at their rear ends to the rear axle and braced therefrom, the forward ends of said bars being fastened together, a forked swivel member, the arms of which are fastened to the outer inclined faces of said bars, said swivel member having a shoulder at the base of said forks and a threaded end, a cylindrical bearing member in which said swivel member is mounted, a nut mounted upon the threaded end of the swivel member, braces secured at positions diametrically opposite upon said bearing member and fastened to the forward axle of the gear, as shown and described.

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

GEORGE J. CAWLEY.

Witnesses:

A. L. Hough,

Franklin H. Hough.