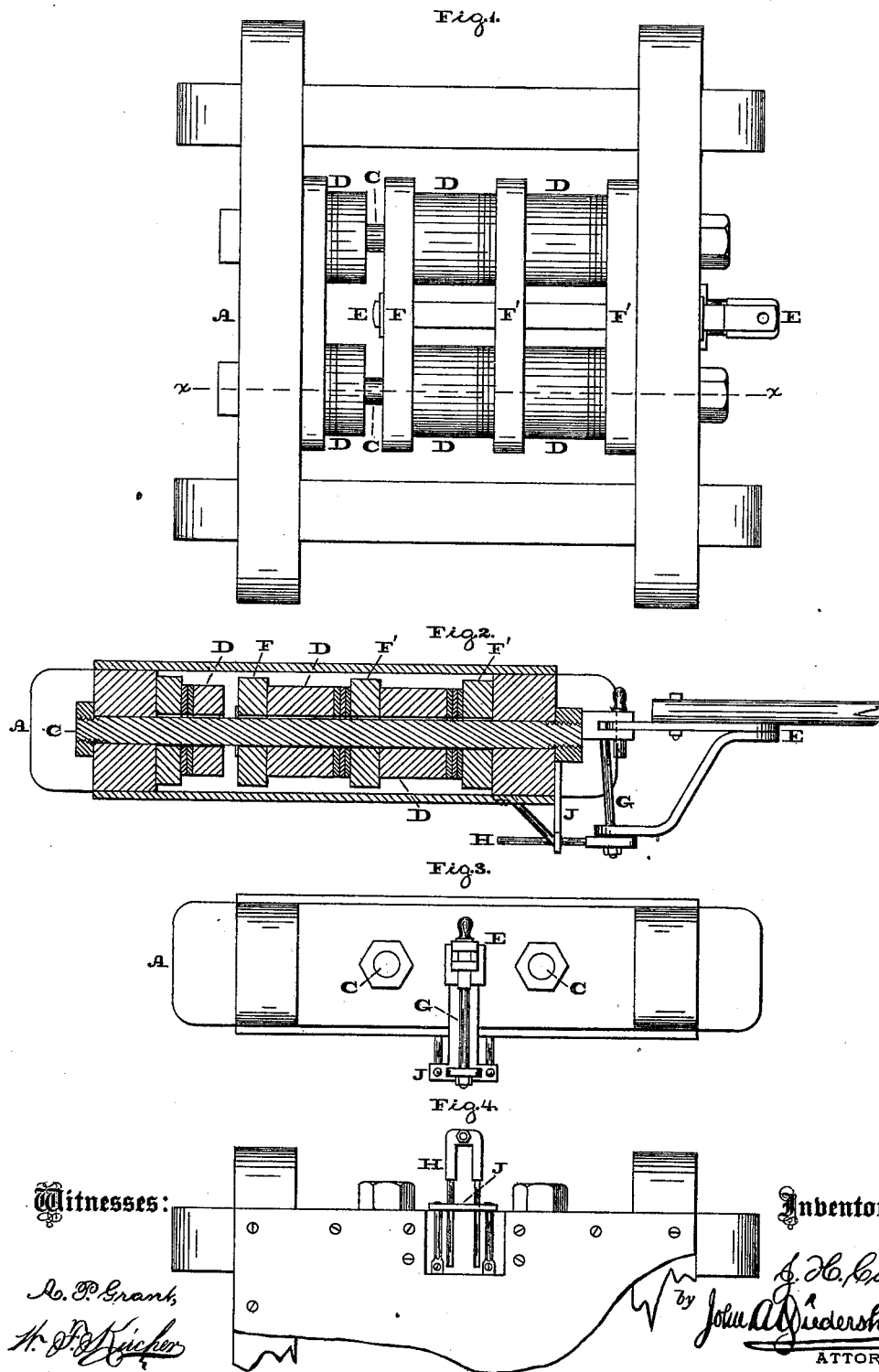


J. H. COXEY.
 Drawbar for Railway Cars.
 No. 213,810. Patented April 1, 1879.



UNITED STATES PATENT OFFICE.

J. HAMPSON COXEY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DRAW-BARS FOR RAILWAY-CARS.

Specification forming part of Letters Patent No. **213,810**, dated April 1, 1879; application filed February 4, 1879.

To all whom it may concern:

Be it known that I, J. HAMPSON COXEY, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Draw-Bars for Cars and other Vehicles, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top or plan view of the device embodying my invention. Fig. 2 is a longitudinal vertical section in line *x x*, Fig. 1. Fig. 3 is a front view thereof. Fig. 4 is a bottom view of a portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a box adapted to be secured to the truck, running-gear, platform, or other proper portion of a car or vehicle, and containing a series of springs, which are compressed by the movement of the draw-bar in either direction of the car, so as to ease the operation of starting the car and preventing strain in the parts. For this purpose the springs are hung loosely on stringers, which are secured to the box and combined with the draw-bar, and with a bearing-bar, which, fixed to the rear of the draw-bar, is also fitted loosely on the stringers, whereby the stringers support and guide the springs, the bearing-bar attached to the draw-bar, and a bearing bar or bars interposed between the springs.

It also consists in arranging the springs in series, so that the compression is gradual, and they are operative in either drawing or backing the vehicle, said springs being fitted loosely on stringers, and combined with the draw-bar and with bearing-bars, which are also fitted loosely on the stringers.

Referring to the drawings, A represents a box formed of top, bottom, and side pieces, and adapted to be secured to the front of the truck, running-gear, platform, or other proper portion of a car or vehicle. C represents longitudinally-extending stringers or rods, which are bolted or screwed to the front and rear pieces of the box A, and on the same are supported a series of springs, D. E represents the draw-bar, which is passed through the front piece of the box A, and firmly secured

at its rear to a bearing piece or bar, F, which is fitted loosely on the stringers C. One or more bearing pieces or bars, F', are also fitted loosely on the stringers C, and likewise loosely on the draw-bar E.

The bearing-pieces F F' are disposed between adjacent springs, so that there is a spring on each side of said pieces; and the springs may be formed of rubber or metal, as required or desired.

The operation is as follows: When the draw-bar is carried forward by the animals or other power, the pieces or bars F F' bear against the adjacent springs, whereby the springs are gradually compressed, thus gradually starting the vehicle instead of a dead pull, and easing the animals, as also preventing direct and injurious strain on the box and vehicle.

As there is a certain play of the rear bearing-piece, F, on the stringers, the backing of the car is accomplished with results similar to the above as said piece is pressed against the springs located at the rear of the box. The interposition of several bearing-bars permits the employment of short and powerful springs, and prevents lateral strain thereon.

The box is closed on all sides, thus preventing dirt, dust, &c., reaching and injuring the springs and other parts within the same; and the stringers C serve in a measure to secure and strengthen the sides of the box. From the head or outer end of the draw-bar there depends a rod, G, secured thereto, and carrying at its lower end a guiding-piece, H, consisting, in the present case, of two arms, which are passed through a bracket, J, secured to the front piece of the box A. As the piece H slides on the bracket, it is evident that when the tongue or pole is in position and the vehicle is running, the draw-bar is caused to move with uniformity, and provision is made for preventing lateral strain of said bar.

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

1. The box A, draw-bar E, and stringers C, in combination with the springs D, fitted loosely on said stringers, the bearing-bar F', fitted loosely on the stringers and fixed to the

rear of the draw-bar, and the bearing-bar F', interposed between the springs, whereby said stringers severally support and guide the series of springs, the bearing-bar F of the draw-bar, and the bearing-bar F' between the springs, substantially as and for the purpose set forth.

2. The springs D, formed in series and fit-

ted loosely on the stringers, in combination with the bearing-bars F F' and the draw-bar E, substantially as and for the purpose set forth.

J. HAMPSON COXEY.

Witnesses:

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