

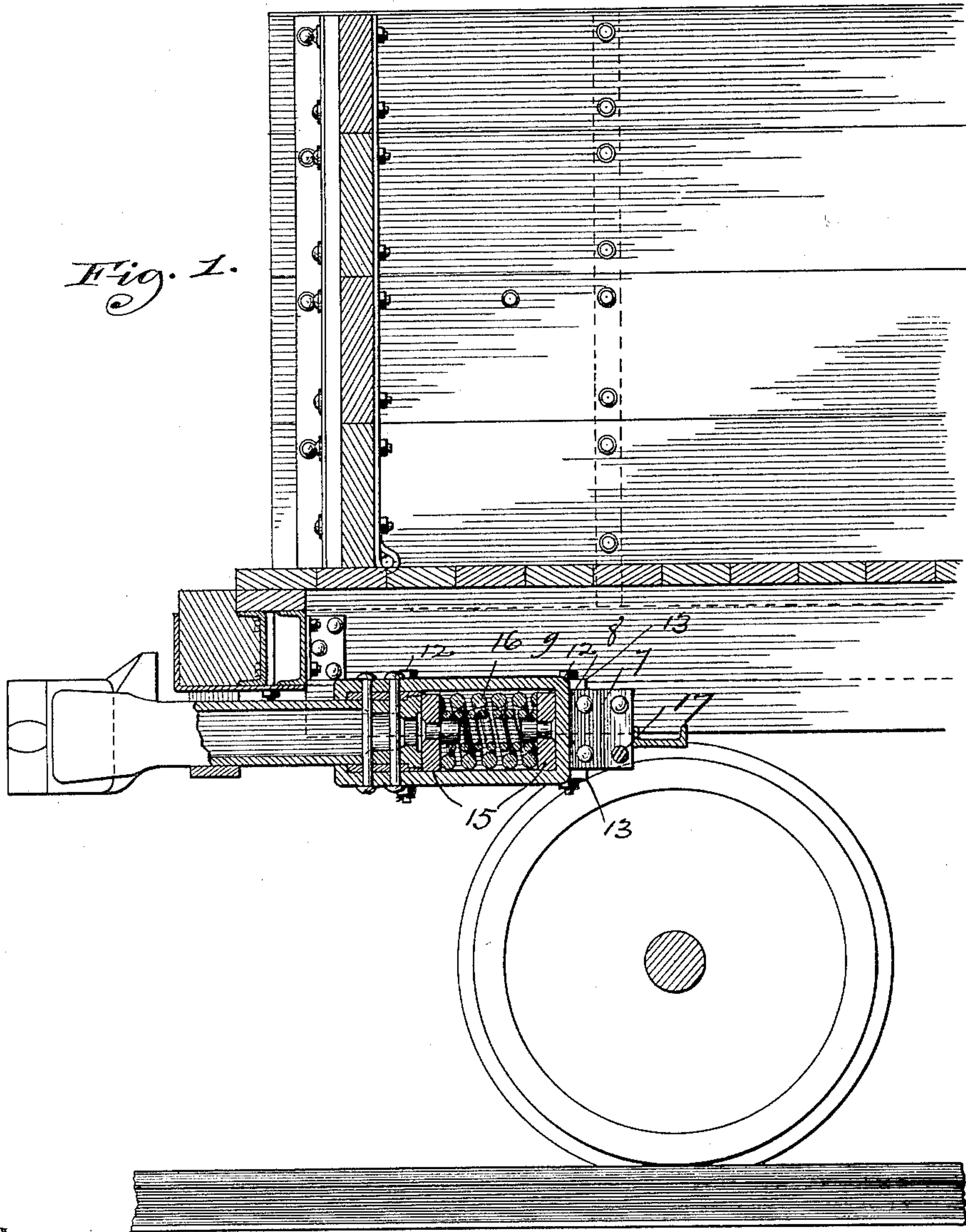
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3 Sheets—Sheet 1.

G. L. HARVEY.  
DRAW GEAR FOR RAILWAY CARS.

No. 462,911.

Patented Nov. 10, 1891.



Witnesses,  
D. O. Mann  
Frederick Goodwin

Inventor.  
George L. Harvey  
By, Offield, Fowler & Luthman  
Attys.

(No Model.)

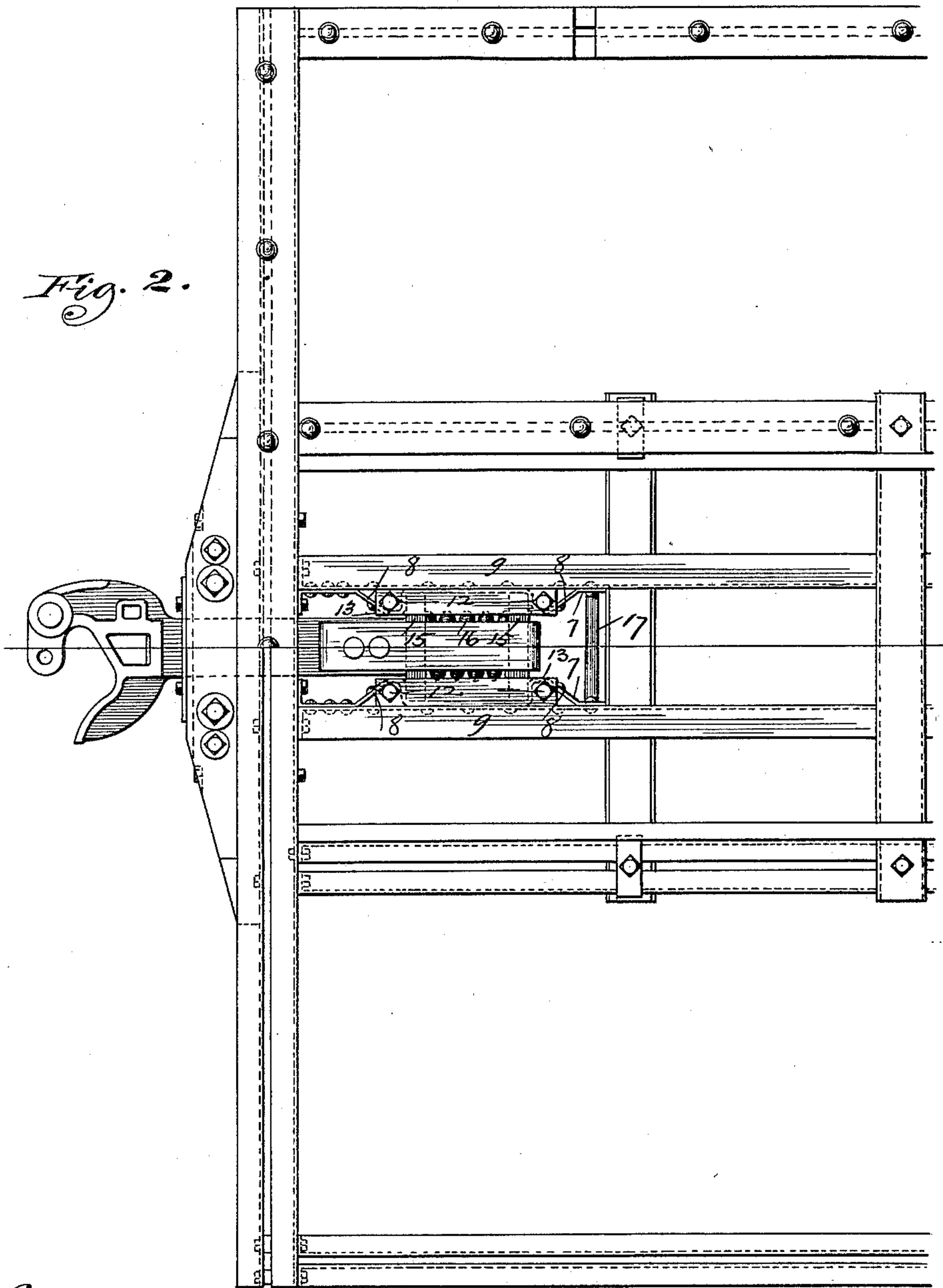
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*Fig. 2.*



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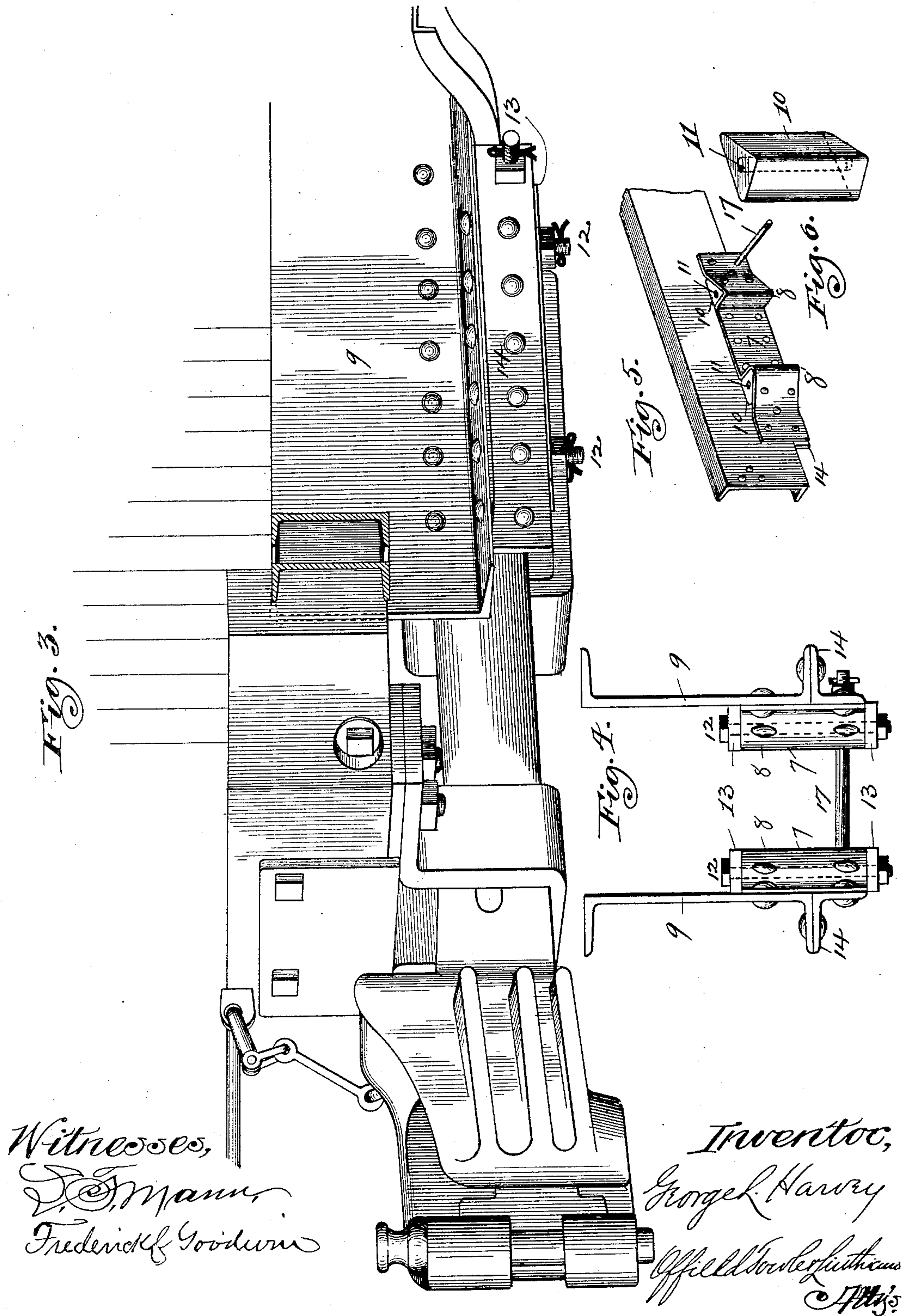
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# UNITED STATES PATENT OFFICE.

GEORGE L. HARVEY, OF CHICAGO, ILLINOIS.

## DRAW-GEAR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 462,911, dated November 10, 1891.

Application filed August 6, 1891. Serial No. 401,885. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE L. HARVEY, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in a Draw-Gear, of which the following is a specification.

My invention has for its object to provide an improved draw-gear for railway-cars; and it consists, first, in a draw-gear the pocket whereof is formed from forged plate having lateral offsets to provide abutments or stops for the follower-blocks and adapted to be secured with their plane sides to the sills.

My invention consists, further, in the combination, with plates such as above described, of filling-pieces, which give support to the lateral shoulders or offsets forming the abutments, and which are preferably perforated for the passage of bolts, whereby the guides are attached to the plates.

In the accompanying drawings, Figure 1 is a longitudinal sectional view through the end of a car of the type known as the "Harvey steel car" and showing my improved draw-gear applied thereto. Fig. 2 is a plan view. Fig. 3 is a perspective of the draw-gear applied and showing the connected parts. Fig. 4 is an end view of the sills with the draw-gear plates and the upper and lower guides connected thereto. Fig. 5 is a perspective view of a portion of a metal sill with one of my draw-gear plates and its filling-piece secured thereto, and Fig. 6 is a perspective view of the filling-piece.

In construction I preferably forge the draw-gear plates 7 from a flat bar to provide therein the lateral offsets or shoulders 8. The faces of these shoulders are opposed to each other and extend at right angles from the body, as shown in the drawings. Beyond the shoulders the ends of the plate project in the plane of its middle, and the plate is provided with suitable apertures for bolts or rivets, whereby it is secured to the sill 9. In order to give support to these shoulders in the line of strain, I employ the filling-pieces 10, which will be of a shape in cross-section corresponding to

the form of the opening behind said shoulders. These filling-pieces preferably have apertures 11, through which the securing-bolts 12 are passed, whereby the top and bottom guides 13 are secured with the plates.

In some instances it is expedient to locate the draw-gear partially below the sills, and in such case I may secure it, as seen in Fig. 4, by the aid of the angle-bars 14. The follower-blocks 15 and springs 16, which may be of the ordinary type, are conveniently applied by inserting them from below prior to the putting on of the lower guide-plates, and their removal can be as readily effected by the removal of said guide-plates. I prefer to employ a tie-bolt 17, which is passed through both of the draw-gear plates at the rear, as seen in Figs. 2 and 3, to prevent the gear from spreading under the shocks of service.

The utility of this invention consists, mainly, in the facility with which the draw-gear may be constructed or repaired without the aid of special appliances and with few parts, while it furnishes a strong and effective draw-gear readily interchangeable with standard or other draw-gears of ordinary construction. Without limiting myself to precise details of construction, I claim—

1. In a draw-gear, the combination, with plates having lateral offsets between their ends to provide abutments for the follower-blocks, of filling-pieces adapted to the openings behind said offsets, substantially as described.

2. In a draw-gear, the combination, with plates having lateral offsets to provide abutments for the follower-blocks, said plates having their ends beyond said abutments adapted to be secured to the sills, filling-pieces for the spaces behind said abutments, said filling-pieces being apertured for the passage of bolts, whereby to secure the guide-plates, substantially as described.

GEORGE L. HARVEY.

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