

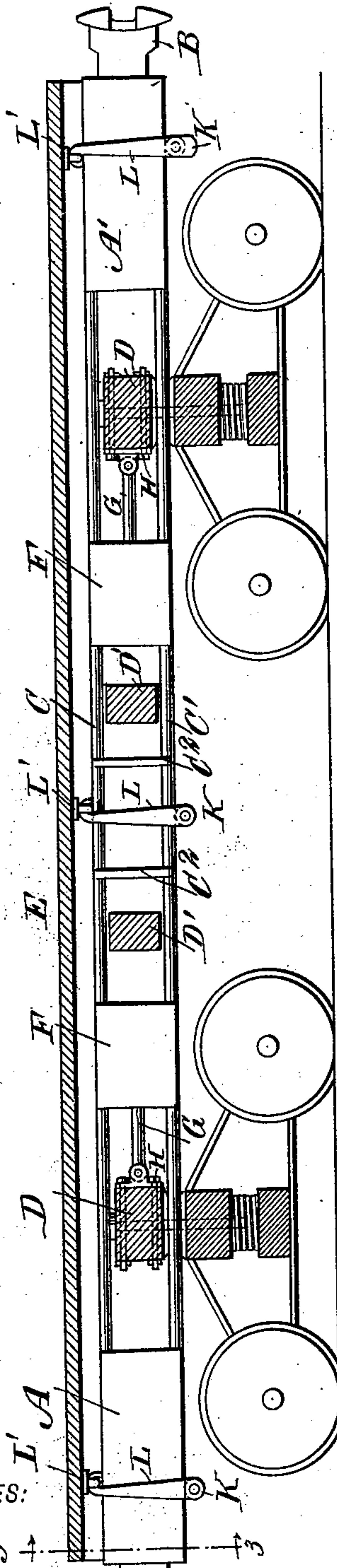
(No Model.)

J. SHAW.  
DRAW BAR FOR RAILROAD CARS.

No. 560,436.

Patented May 19, 1896.

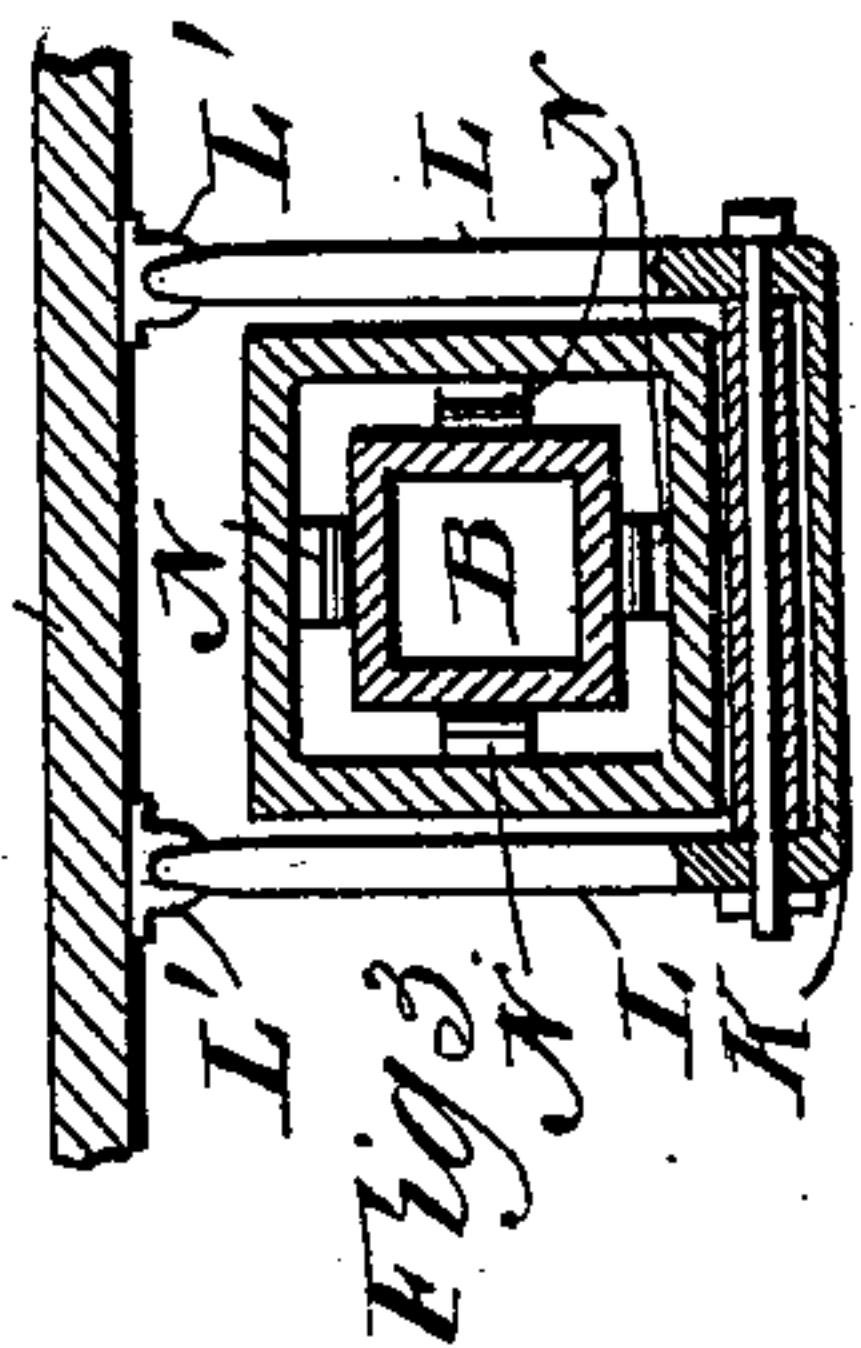
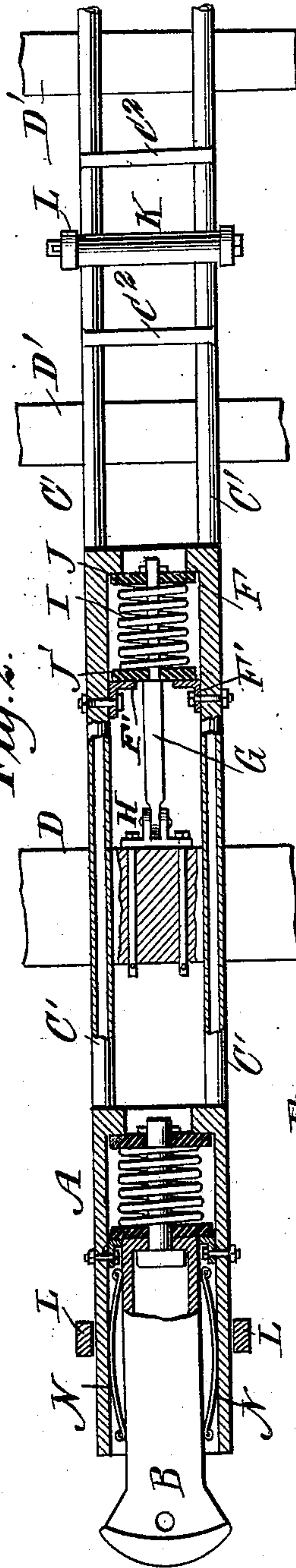
Fig. 1.



WITNESSES:

*Paul J. ...*  
*Geo. H. ...*

Fig. 2.



INVENTOR

*J. Shaw*  
BY *Munn & Co*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN SHAW, OF WOODBURN, OREGON.

## DRAW-BAR FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 560,436, dated May 19, 1896.

Application filed August 10, 1895. Serial No. 558,897. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SHAW, of Woodburn, in the county of Marion and State of Oregon, have invented certain new and useful Improvements in Railroad-Cars, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in railroad-cars, whereby the cars in a train are relieved of all pulling and pushing, strain, jerks, and jams, thereby freeing the car-body of the weight of the train.

The invention consists principally of a frame extending longitudinally on the under side of the car from one end to the other, the said frame being mounted to slide, and springs interposed between the frame and the body of the car to take up the strain.

The invention also 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 characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is an inverted plan view of the same with parts in section, and Fig. 3 is an enlarged cross-section of the same on the line 3 3 of Fig. 1.

The car is provided on the under side of its body with a longitudinally-extending frame formed at its ends with draw-heads A and A', containing the draw-bars B, rigidly connected with each other by sets of upper and lower tubes or pipes C and C', between which extend loosely some of the transverse beams D and D' of the body of the car E. The several tubes are connected with each other by ties C<sup>2</sup> for the purpose of making the frame as stiff as possible. The frame thus formed is provided between the beams D D' with casings F, into each of which extends a rod G, pivotally connected with a keeper H, held on the adjacent car-beam D. On the rod G within the casing F is coiled a spring I, resting with one end on a washer J, attached to the rod G and with the other end attached to a washer J', adapted to abut against lugs F', secured to the inside of the casing. Now it

will be seen that when a pull or push is exerted on the frame in either direction the strain is taken up by the springs I in the casings F, and consequently the car-body is relieved of all strain, jerks, jams, and the like incident to the car while traveling on the road. In order to facilitate the sliding of the frame, I mount the same on rollers K, journaled in U-shaped hangers L, hooked onto staples L', attached to the under side of the car-body, as plainly indicated in Figs. 1 and 3. The draw-bars B are yieldingly mounted in the usual manner in the draw-heads A A' and are supported at their sides, top, and bottom by springs N, preferably in the form of elliptical springs, as indicated in Fig. 2. These springs N serve to hold the draw-bar in the center of the draw-head and also permit the draw-bar to swing to either side when the car passes around curves, or to swing up and down when entering upon or leaving a grade, or when the cars to be coupled are not of the same height.

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

1. A railroad-car, provided with a frame mounted to slide longitudinally on the under side of the car, and formed at its ends with draw-heads containing the draw-bars, casings held on the said frame, rods connected with a fixed portion of the car, and springs coiled on the said rods within the said casings, substantially as shown and described.

2. A railroad-car, provided with a frame mounted to slide longitudinally on the under side of the car, and formed at its ends with draw-heads containing the draw-bars, casings held on the said frame, rods connected with a fixed portion of the car, springs coiled on the said rods within the said casings, and washers held on the said rods, to engage the ends of the springs, substantially as shown and described.

3. A railroad-car provided with a draw-frame having casings, each provided with lugs, washers held in the said casing and one resting on the said lugs, a rod engaging the said washers and connected with the car-body and a spring on the said rod between the said washers, substantially as shown and described.

4. A railroad-car having a frame extending longitudinally beneath it, a draw-head at each end of the frame, a beam extending transversely through the frame and rigid on the car, a rod carried by the beam, two washers held on the frame and having limited movement, a rod connected with the beam and passed through the washers, and a spring interposed between the washers, substantially  
10 as described.

5. The combination with a car, of a frame extending longitudinally beneath the same, a draw-head connected to each end of the frame, a beam passed transversely through

the frame and rigid with the car, and a cushioned connection between the beam and frame, substantially as described. 15

6. The combination with a car, of a frame longitudinally movable beneath the car, a cushioned connection between the frame and car, a draw-head at each end of the frame, and U-shaped hangers pivotally mounted on the car and embracing the frame, substantially as described. 20

JOHN SHAW.

Witnesses:

GEO. T. CLINE,  
GEO. V. BOIES.