

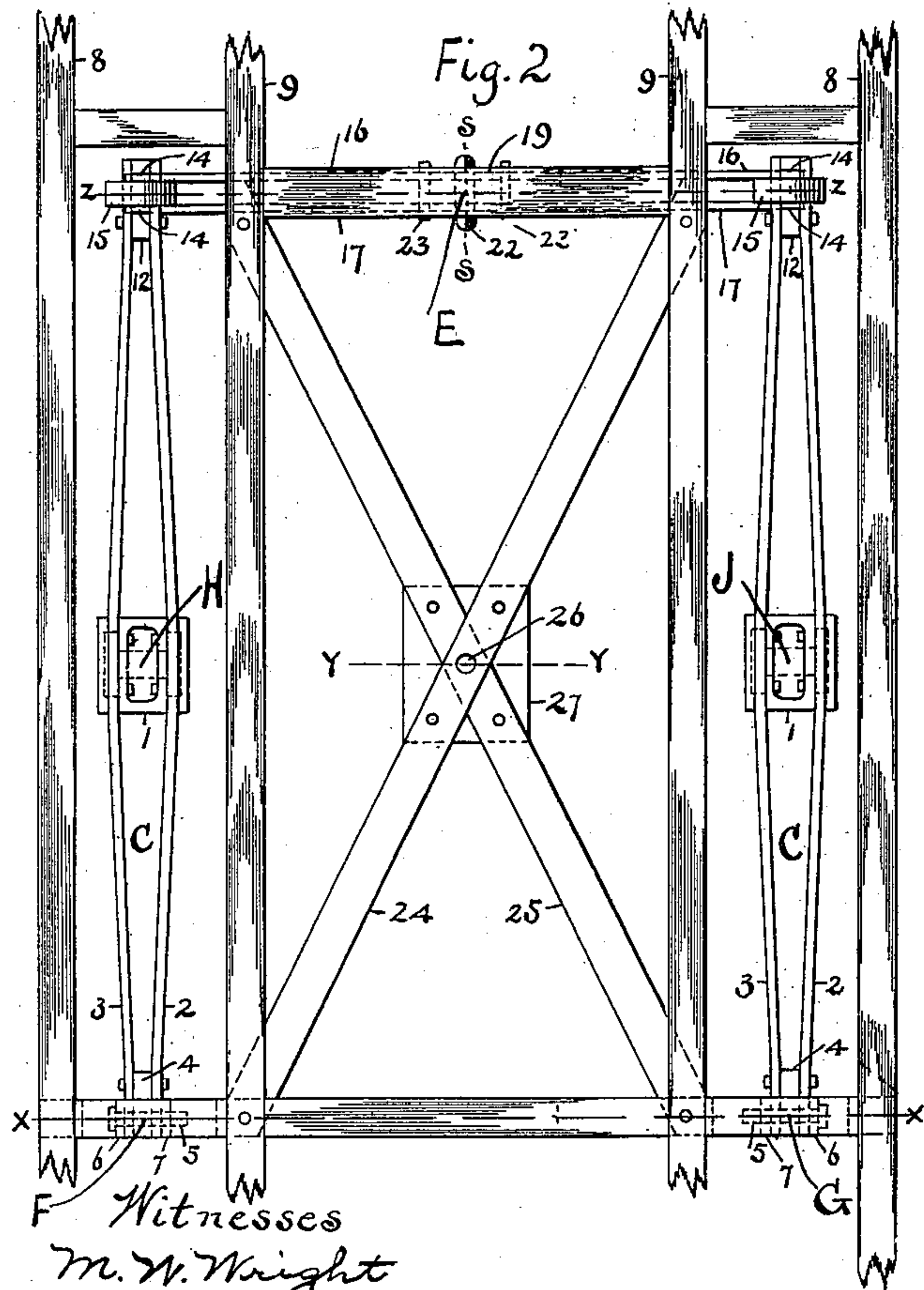
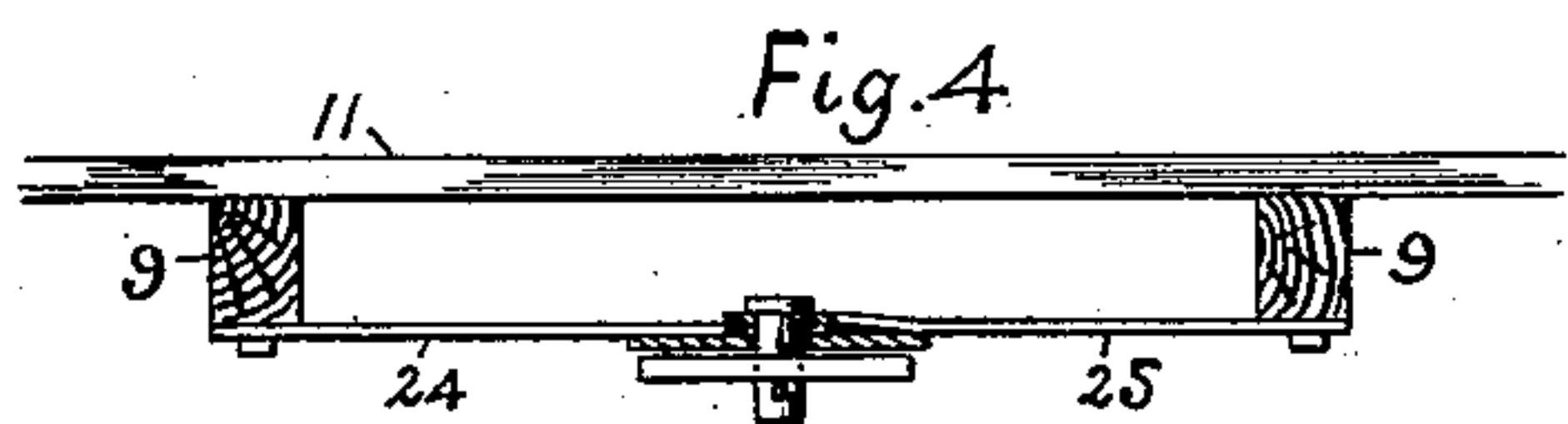
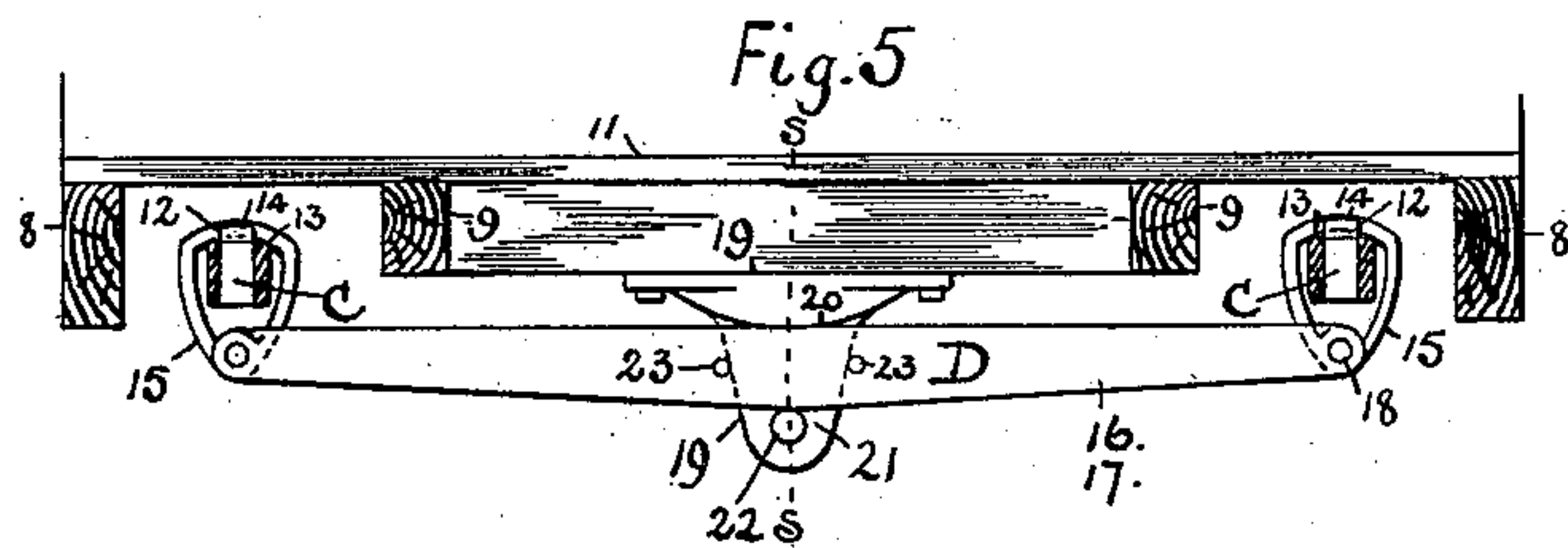
No. 618,480.

Patented Jan. 31, 1899.

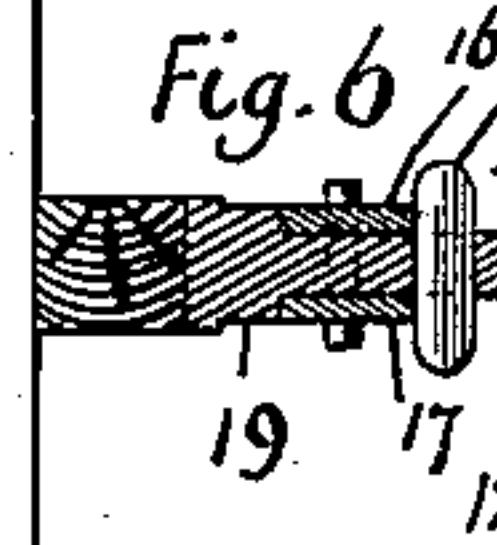
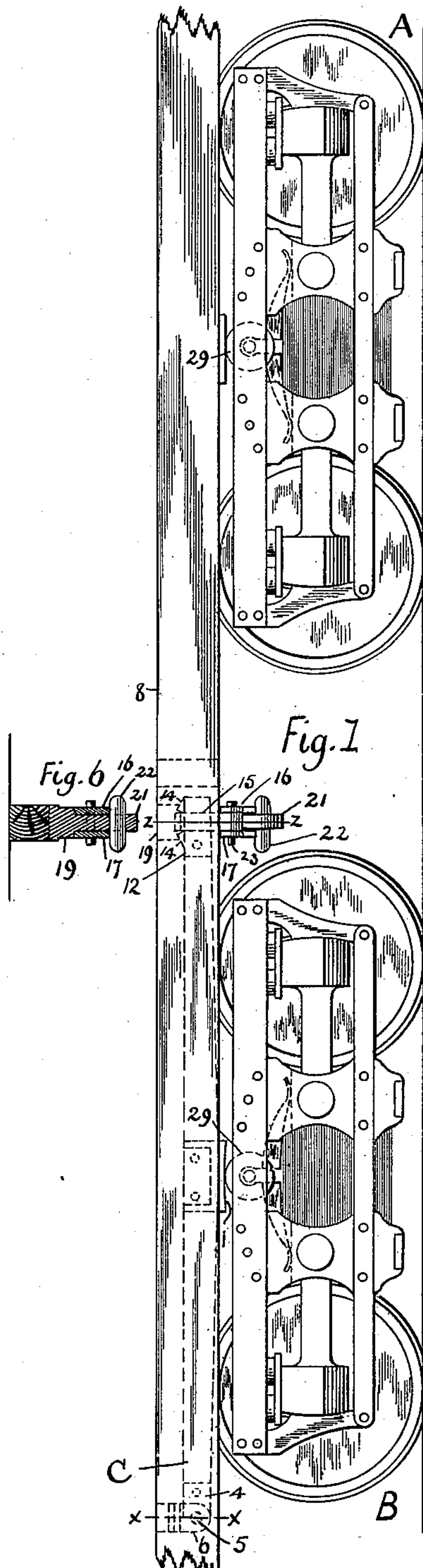
L. T. PYOTT.
RAILWAY CAR.

(Application filed Oct. 25, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS T. PYOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JOHN A. BRILL, OF SAME PLACE.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 618,480, dated January 31, 1899.

Application filed October 25, 1898. Serial No. 694,533. (No model.)

To all whom it may concern:

Be it known that I, LOUIS T. PYOTT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Cars; 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in railway-cars, especially those carried upon separate trucks at each end of the body and carrying self-propelling motors, and has for its object the preservation of the car-body by carrying it upon a triangular base, and thus avoiding the racking, twisting, and straining of the joints of the body which it is subjected to when carried upon two opposite points at each end, which points rise and fall as the truck-wheels encounter depressions and elevations on the track-surface. My mechanism also causes more easy riding for the passengers and less hammering of any inequalities of the rails or their joints and thereby prolongs the wear of rails and wheels. I also avoid the application of bolsters across the car-body above the trucks, thus giving free access to the motors attached to and carried by the open center trucks and equalize the traction of the motors on the wheels.

My mechanism is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation showing the trucks and the lower outer sills of the car-body. Fig. 2 is a plan of the means of attaching the car-body and truck pivotally. Fig. 3 is a section on line *xx*, Figs. 1 and 2. Fig. 4 is a section on line *yy*, Fig. 1. Fig. 5 is a section on line *zz*, Figs. 1 and 2. Fig. 6 is a section on line *ss*, Figs. 2 and 5.

Similar letters and figures of reference refer to similar parts throughout the views.

With the increase of motor-driven cars for suburban and street-car traffic larger cars are demanded and they being long must be carried upon separate trucks at each end to per-

mit them to turn the sharp curves. For the purpose of illustrating my improved method of placing the body upon triangular supports I have shown the electric locomotive for which I was granted Patent No. 585,120, dated June 22, 1897.

The truck A supports its end of the car upon bearings 29 at each side, as fully illustrated and described in the patent aforesaid, while the other truck B does not support the car-body at its sides, but at a central point, as hereinafter described. The bearings 29 of the truck B at each side support concave plates 1, secured at about mid-length of side beams C, composed of double bars 2 3, they being secured together at their center by the ribs at the back of plate 1, to which they are bolted or riveted. Passing forward the bars 2 3 come closer together and have an interposed distance-piece 4 securely bolted or riveted to them. Through this end of the side beams C, composed of bars 2 3 and piece 4, is placed a pin or bolt 5, which also passes through brackets 6 7, pendent from and secured to the car-framing, thus fulcruming the bars C to the car-body underframe, as best seen in Fig. 3, between the outer and intermediate sills 8 9 of the car-body and under strap 10 and floor 11. By noticing Fig. 1 it will be seen that the side beams C are concealed from general view by the outer sill 8, while open to inspection by the railway employees and easy to apply or remove. At the end of side beams C toward truck A and the center of the car-frame and body the bars 2 3 are brought nearer to each other than at plate 1 and an interposed piece 12 is secured. This piece has a rounded top 13 and guard-ledges 14 placed between guard-ledges 14, and bearing on rounded top 13 is a clevis 15 for each beam C, which reaches downwardly and passes between bars 16 17 of transverse pivot-beam D, to which each clevis 15 is pivotally secured by bolt or pin 18. Central as to length of transverse pivot-beam D and also central across the car-body underframing is attached, under the framing, a central fulcrum 19, having an under rounded surface 20, upon which the transverse pivot-beam D bears. A tongue 21 projects downward from fulcrum 19, and its rounded surface 20 passes between bars

16 17 of beam D below bars 16 17, where a pin 22 is inserted, and on each side of tongue 21 bolts or pins 23 are passed through bars 16 17, thus permitting full and free action of the transverse pivot-beam D, while securing it in proper position vertically and transversely. I have shown transverse bar D as being toward the center of the car relatively to the center of truck B and beams C pivoted near the end of the car, which arrangement facilitates the removal of truck B from in under the car as requiring less lifting of the car-body to clear tongue 21; but in some instances or to suit some car constructions it may be deemed best to reverse the above-described conditions, which can be done and still preserve the objects of my invention as to placing the car-body on three points of support. Attached to the car-underframe are flexible steel bars 24 25, lying flat, diagonally crossing each other at the truck-center 26, and joined at the crossing by a plate 27, which carries a king-bolt of suitable construction to attach and drive the truck or for the truck to pull the body, while, owing to the flexibility of bars 24 25, they convey no part of the car-body weight to the truck, plate 27, or the truck B. The plate 38 is best seen in the electric-locomotive patent heretofore referred to. It will be seen that the car-body bears over truck B at points E F G only, while the weight is conveyed to the truck at points H J.

I claim—

1. In a car, a truck at one end having side bearings supporting the car-body at each side, and at the other end a truck supporting side beams, upon each side of the car-body, the beams being fulcrumed to the car-body at one end and at the other end yieldingly attached to a transverse beam centrally fulcrumed to the car-body, substantially as described.

2. In a car an underframing adapted to rest centrally upon a transverse beam at its center, said beam having side beams yieldingly attached thereto at one end and at their opposite end pivotally attached to the car-body, and means to rest the side beams upon the truck, substantially as described.

3. In a car, double trucks, one truck supporting the car at its sides, and one truck supporting a substructure composed of side beams pivoted to the car at one end, resting at their center upon the truck and at the other end yieldingly supporting a transverse beam which is centrally supported upon the car-body, substantially as described.

4. A car having double trucks thereunder, one truck having side bearings upon the car,

the other truck having side bearings upon side beams pivotally attached to the car at one end and secured at the other end to a transverse beam having a central support for the car to rest upon, and bars attached to the car-body, crossing at the center of the truck and having means to drive the truck, substantially as described.

5. A car having double trucks, one of which is side bearing directly to the car-body, and one of which has side bearings upon the longitudinal members of a system of three levers yieldingly attached and yieldingly supported upon the car-body at three points, one of said points being at the transverse center of the car upon the transverse lever, and the others upon either side of the car at the ends of the longitudinal levers removed from the transverse lever, substantially as described.

6. A car supported upon one side-bearing truck, and upon one truck by levers attached to the car centrally and at the sides longitudinally removed from the center of the truck, and flexible bars attached to the car-body, carrying a king-bolt but conveying no weight to the truck, substantially as described.

7. In a double-truck car, at one end, side bearings upon the supporting-truck, and at the other end means to yieldingly rest the car upon a transverse beam at its center, and at the transverse center of the car, longitudinal beams coupled to the ends of the transverse beam for yielding movement, means to couple the opposite ends of the longitudinal beams pivotally to the car, and means upon the longitudinal beams to support them upon a truck, substantially as described.

8. In a car, a central fulcrum having a rounded surface adapted to rest upon a transverse beam composed of multiple bars, a tongue projecting from the seat, adapted to pass between the bars, and means to secure the bars vertically and transversely to the tongue, clevises seated for yielding movement upon the ends of the transverse beam and thereafter pivotally coupled to longitudinal beams composed of multiple bars which at their opposite end are pivotally attached to the car-framing, and concave side-bearing seats upon the longitudinal bars adapted to rest upon the roller side bearings of a truck, substantially as described.

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

LOUIS T. PYOTT.

Witnesses:

W. H. ALCOCK,
R. C. WRIGHT.