

A. HIGLEY.
Car Truck.

No. 99,774.

Patented Feb. 15, 1870.

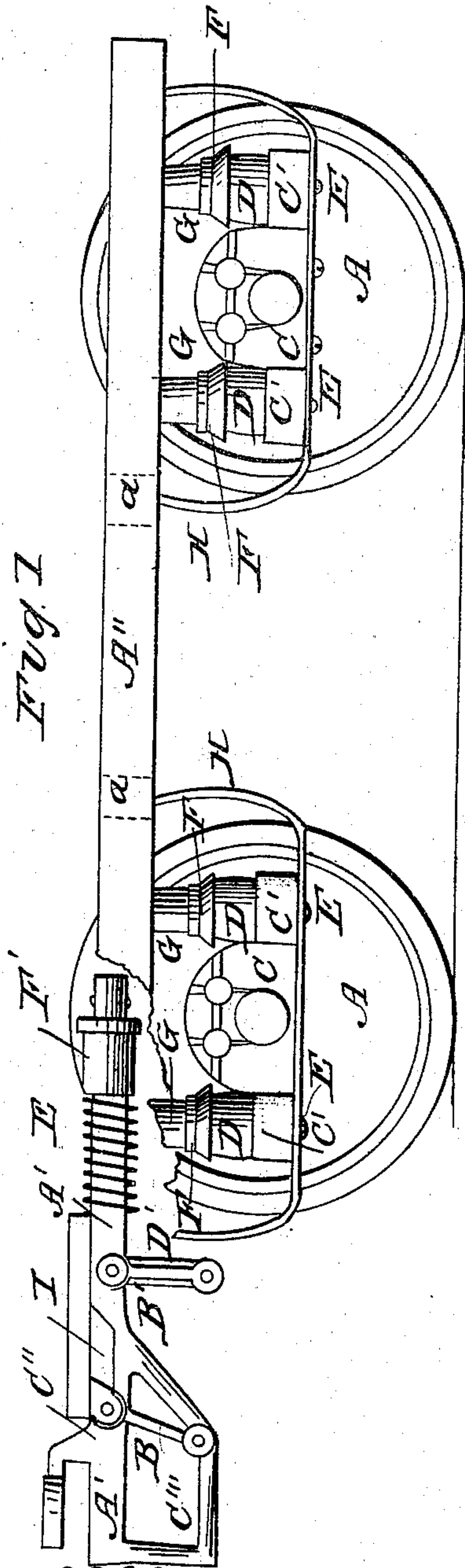


Fig. 1

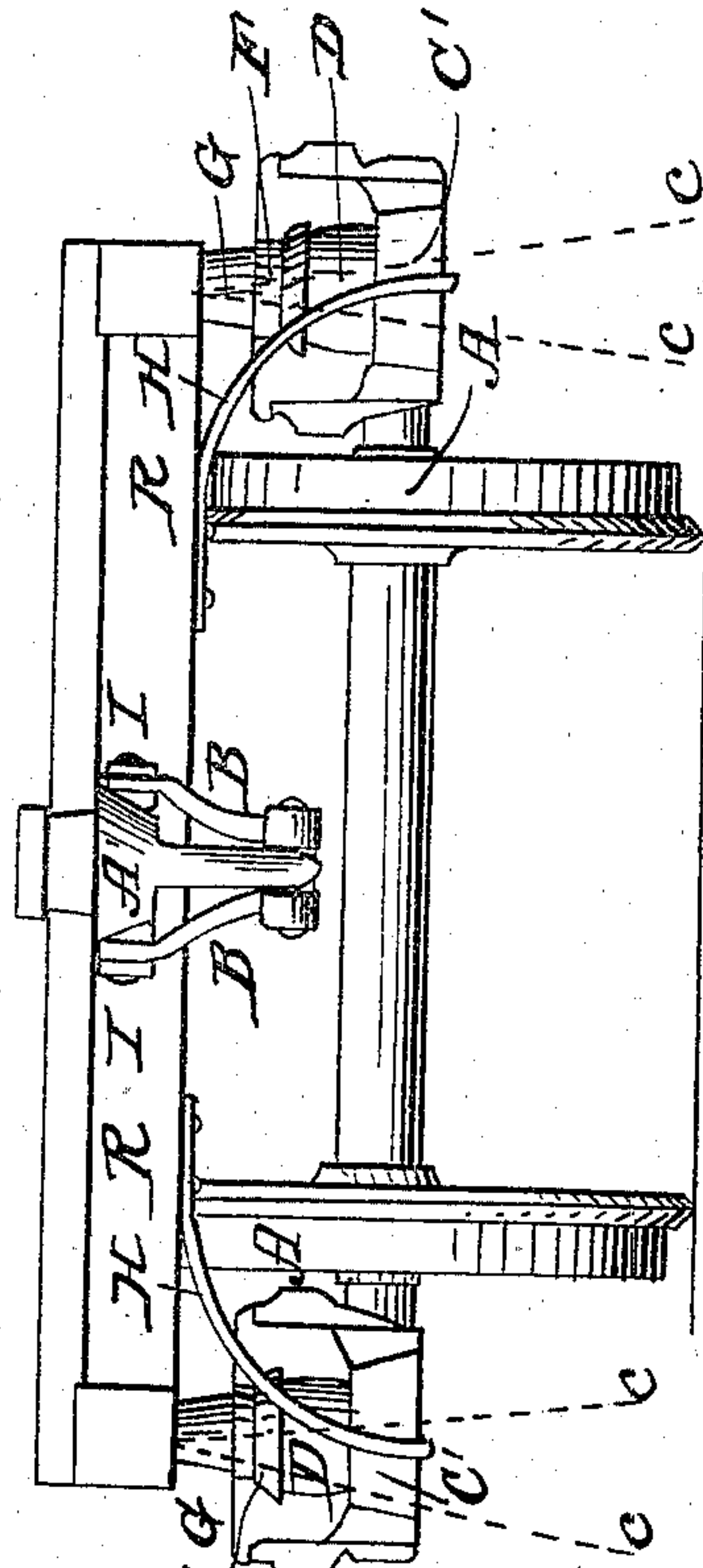


Fig. 2

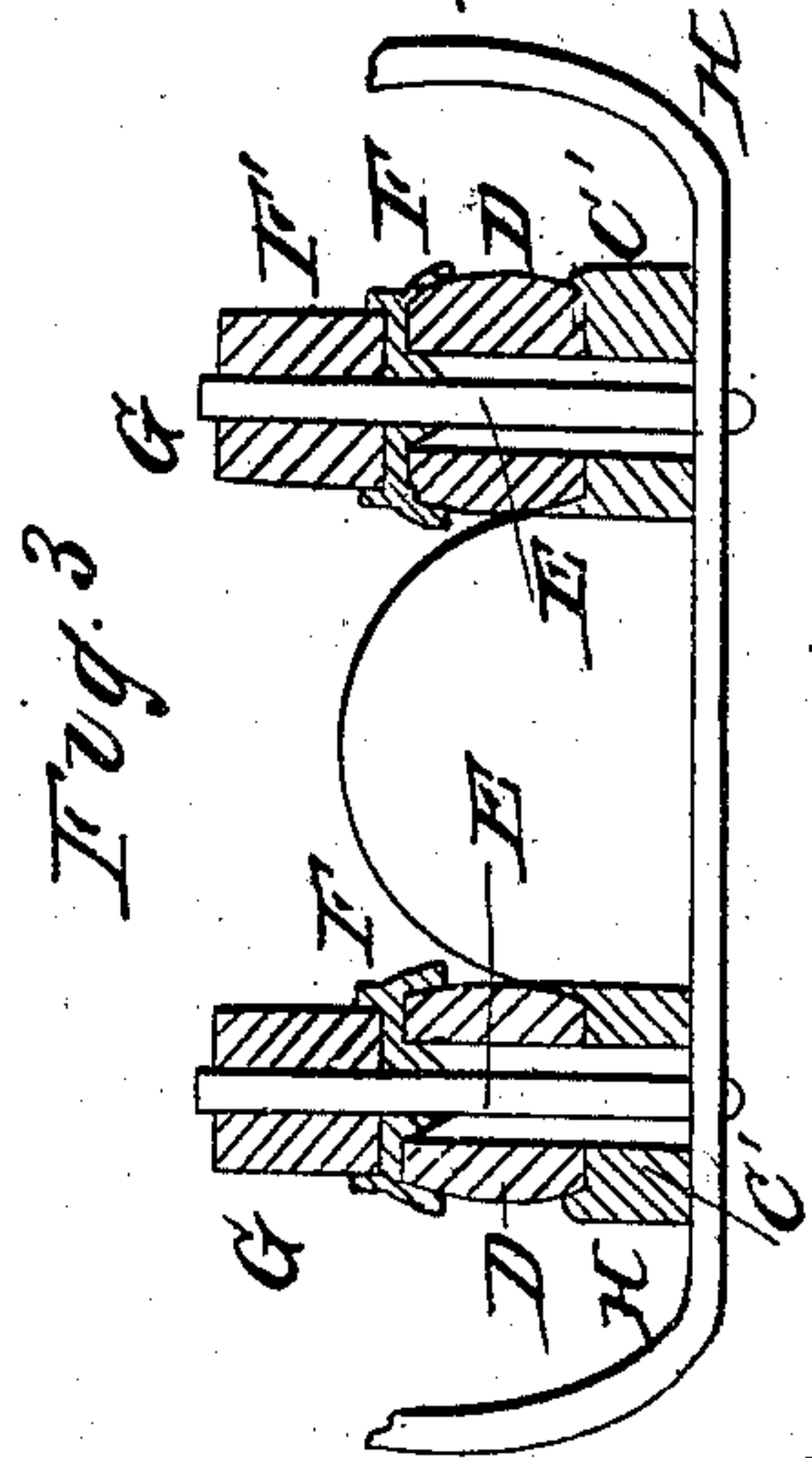


Fig. 3

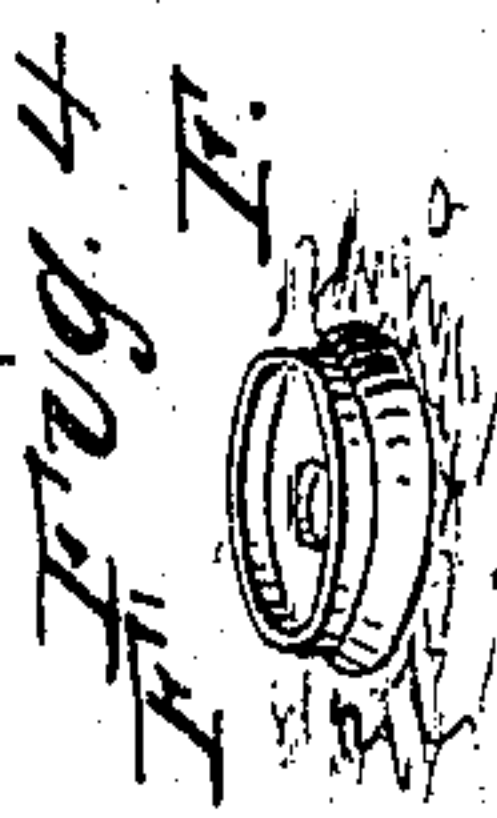


Fig. 4

Witnesses
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AARON HIGLEY, OF CLEVELAND, OHIO.

Letters Patent No. 99,774, dated February 15, 1870.

IMPROVEMENT IN CAR-TRUCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, AARON HIGLEY, of Cleveland, Cuyahoga county, State of Ohio, have invented a certain Improved Railroad-Car Truck; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making part of this specification.

Objective.

This invention has for its object the construction of a railroad-car truck in such way that there is given to the framework of said truck and to the car thereon, a longitudinal and transverse freedom of movement, thereby relieving the car from sudden and violent shocks while in motion, and in stopping and starting, as hereinafter more fully described.

It also has for its object the method of preventing the boxes or pedestals from moving too far out of place in their relation with the frame and axles, as hereinafter set forth.

Figure 1 is a side view of a car-truck.

Figure 2 is an end view of the same.

Figure 3, a vertical section of some of the details on an enlarged scale.

Figure 4, a perspective view of the spring-collar on an enlarged scale.

Like letters of reference refer to like parts in the several views.

A represents the wheels of the truck, on which is mounted the frame A', supported on the axle-boxes C by elastic standards, consisting, in part, of a spring, D, enclosing the stay-bolt E, whereby the axle-box is secured to the frame.

It will be observed that said spring does not fit closely around the bolt, but that there is considerable space between the inside of the spring and bolt, and which is also the case with the arm C'; thus a space is formed around the bolt E, through the spring D and arm C', fig. 3, the purpose of which will presently be shown.

It will also be seen that the bottom of said spring is received into a recess sunk in the arms or projecting sides C' of the axle-box C, the purpose of which is to prevent the displacement of the springs; also the upper end of the spring is secured in the recess of a collar or cap, F, which in like manner prevents the displacement of the upper end.

Superimposed upon the collar and spring D referred to is an additional spring, G, the lower end of which is received into a recess, F', formed on the upper side of the collar F, figs. 3 and 4, which serves to prevent its displacement.

It will be observed that the spring G, unlike spring D, fits snugly around the bolt, as does the collar, so that there is but little lateral movement of the bolt within the spring and collar.

Having thus described the construction and arrangement of the device, the practical operation of the same is as follows, viz:

It will be obvious that in consequence of the spring D and the arms C' of the axle-box through which the bolt passes to the stay-brace H, being loosely fitted about the bolt, it will, in consequence, allow to the frame A' a longitudinal and lateral movement, thereby allowing it to sway gently and easily to the varied end and sidewise movements of the wheels, and thus relieve the car from all violent and sudden shocks while in motion, and in stopping and starting, and at the same time the elastic nature of the springs gives to the car an easy and gentle support and spring to its vertical movement. It also permits the car to pass over the curves of the road with more ease and less strain upon the team and axles than cars of the usual construction.

The stay-brace H above referred to consists of one entire piece, which, as will be seen, extends from the cross-piece R, fig. 2, of the truck to which it is attached down to and under the axle-box C, thence up to an intermediate cross or beam indicated by the dotted line a, fig. 1, where it is fastened by screw-bolts in the same manner as seen at R R, fig. 2.

The brace H receives the ends of the bolts E E, as seen in fig. 3, by means of which said bolts are retained in a position at right angles with the axles of the car, and prevented from spreading out in the direction of the lines C C, fig. 2.

Claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the springs D G and collar F with the arms C' suspending-brace H, and bolts E, when the several parts are constructed and arranged to operate together in the manner and for the purpose specified.

2. The cap or collar F, when constructed in the manner and for the purpose of receiving and retaining springs D and G, as set forth.

AARON HIGLEY.

Witnesses:

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