

S. KEELER.
Car-Truck.

No. 226,324.

Patented April 6, 1880.

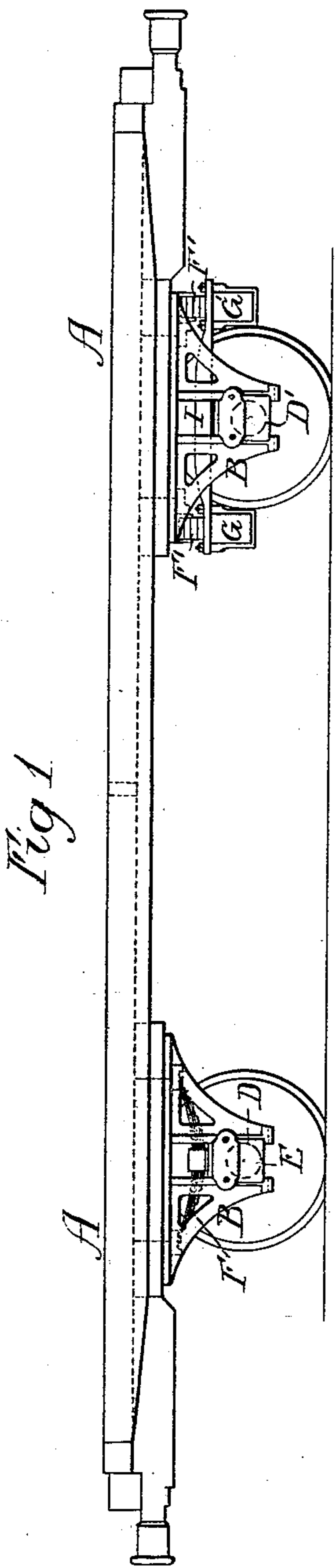


Fig 2

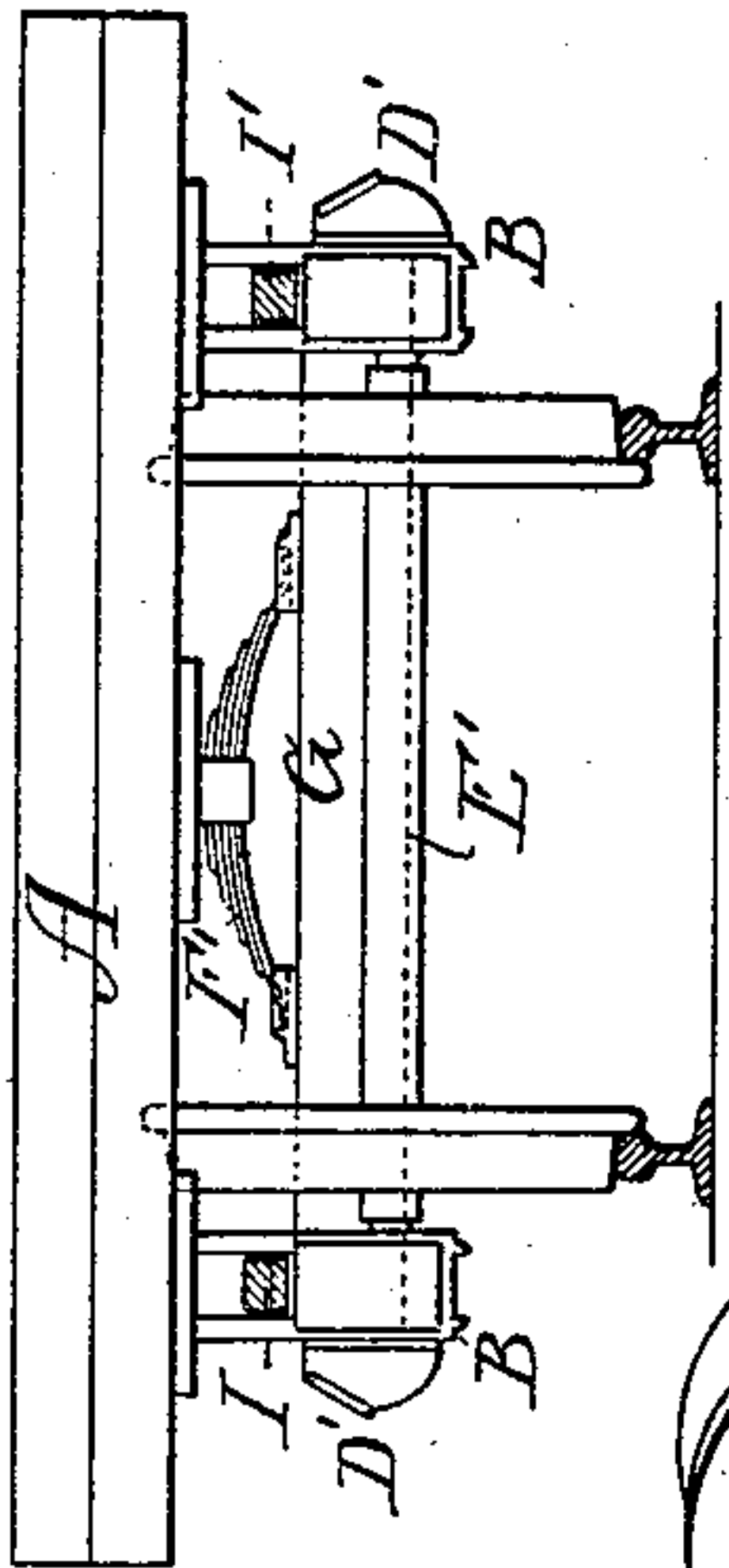


Fig 3

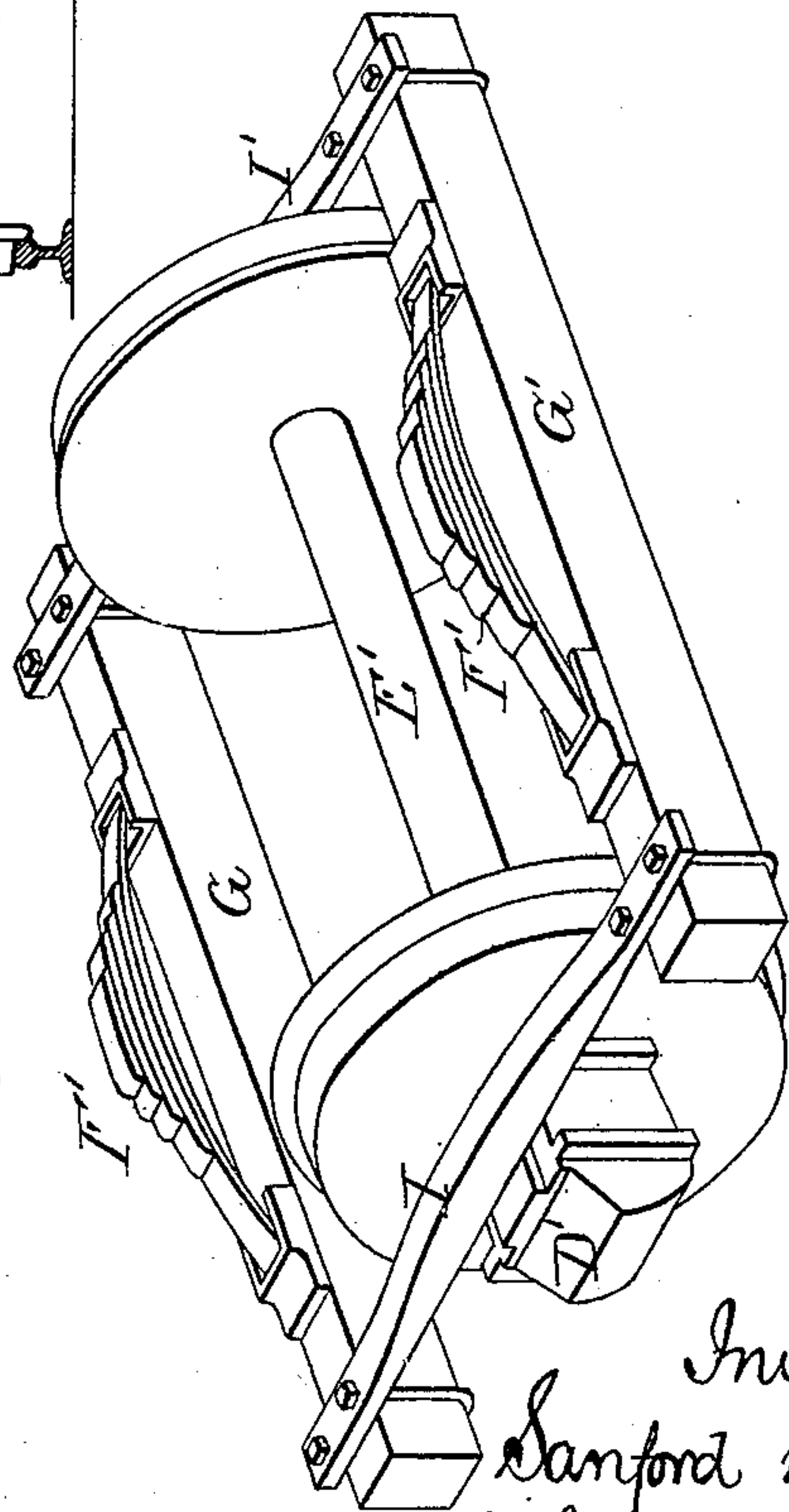
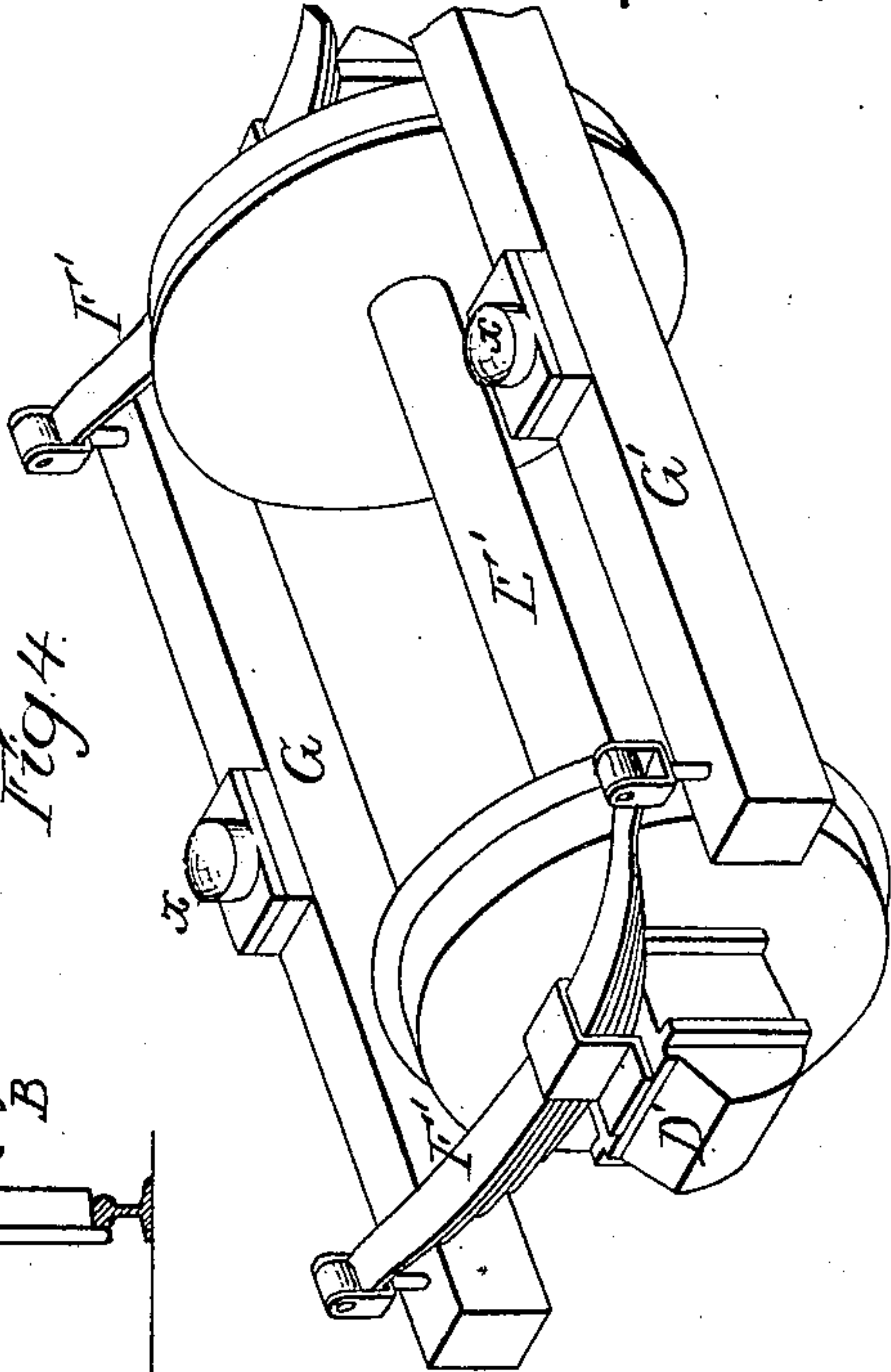


Fig 4



Witnesses
Henry Howson Jr
Harry Smith

Inventor
Sanford Keeler
by his Attorneys
Howson and son

UNITED STATES PATENT OFFICE.

SANFORD KEELER, OF EAST SAGINAW, MICHIGAN, ASSIGNOR OF ONE-HALF
OF HIS RIGHT TO WILLIAM J. WATSON, OF CHICAGO, ILLINOIS.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 226,324, dated April 6, 1880.

Application filed January 12, 1880.

To all whom it may concern:

Be it known that I, SANFORD KEELER, of East Saginaw, Saginaw county, Michigan, and a citizen of the United States, have invented an Improvement in Car-Trucks, of which the following is a specification.

My invention consists in combining the boxes of one of the axles of a railroad-car with a spring-frame interposed between the said boxes, and central longitudinal bearings on the frame of the car on opposite sides of the axle, whereby the springs of the car will have a more uniform action, and one less detrimental to the frame and body than when springs are interposed directly between the boxes of both axles and the car-frame, as usual.

In the accompanying drawings, Figure 1 is a side view of a car with my improvements; Fig. 2, an end view, partly in section; Fig. 3, a perspective view of the improved truck, and Fig. 4 a perspective view illustrating a modification of the invention.

In the device shown in Figs. 1, 2, and 3 one end of the car-frame A has the usual hangers B to vertical guides, in which are adapted the boxes D of the axle E, ordinary elliptical springs F being interposed between said boxes D and the car-frame in the usual manner. The opposite end of the car-body, however, rests on two springs, F' F', one of which bears on a beam, G, on one side of the axle E', and the other on a similar beam, G', on the opposite side of the said axle. The two beams are connected together near their opposite ends by bars I I', which bear on the axle-boxes D' D'. Ordinary elliptical springs attached in the middle to the body of the car and resting with their ends in sockets on the beams are shown in the present instance; but other kinds of springs may be employed.

In the modification shown in Fig. 4 the bars I I' are dispensed with, the springs F' F' bearing directly on the axle-boxes D', and being hung at their opposite ends to the ends of the bars G G'. The latter have central blocks, x, the tops of which are dished, so as to be

adapted to the convex lower ends of blocks on the car frame, thereby forming a sort of ball-and-socket joint, which permits a swinging movement of the said beams G G' independently of the car-frame.

It will be seen that owing to the interposition of a spring-frame such as described between the boxes D' D' and central longitudinal bearings on the car-frame on opposite sides of the axle E', a resilient medium more uniform in its action and in its effects on the car-body is obtained than when the springs are interposed directly between the boxes of both axles and the frame of the car, for in the latter case the springs, acting in a measure independently of each other, permit the car-frame to yield at different points distant from each other, so that constant torsion of the said frame must take place, whereas this objection I overcome by my improvement, which is such that the car frame and body shall have a central bearing at one end and side bearings at the opposite end, and will therefore be subjected to comparatively slight torsional strains.

I claim as my invention—

1. The combination of the beams G G', connecting-bars I I', and springs F' F' with the axle-boxes D' D' and frame of a railroad-car, as set forth.

2. The combination of the frame of a car and the axles and axle-boxes of the same, with springs interposed directly between the boxes of one axle and side bearings at one end of the car-frame, and a spring-frame interposed between the boxes of the other axle and central longitudinal bearings at that end of the car-frame, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SANFORD KEELER.

Witnesses:

ALFRED W. NEWTON,
FRED C. ZIMMERMANN.