(No Model.)

3 Sheets—Sheet 1.

F. A. BARTHOLOMEW.

CAR TRUCK.

No. 336,983. Patented Mar. 2, 1886.

Fig. 1

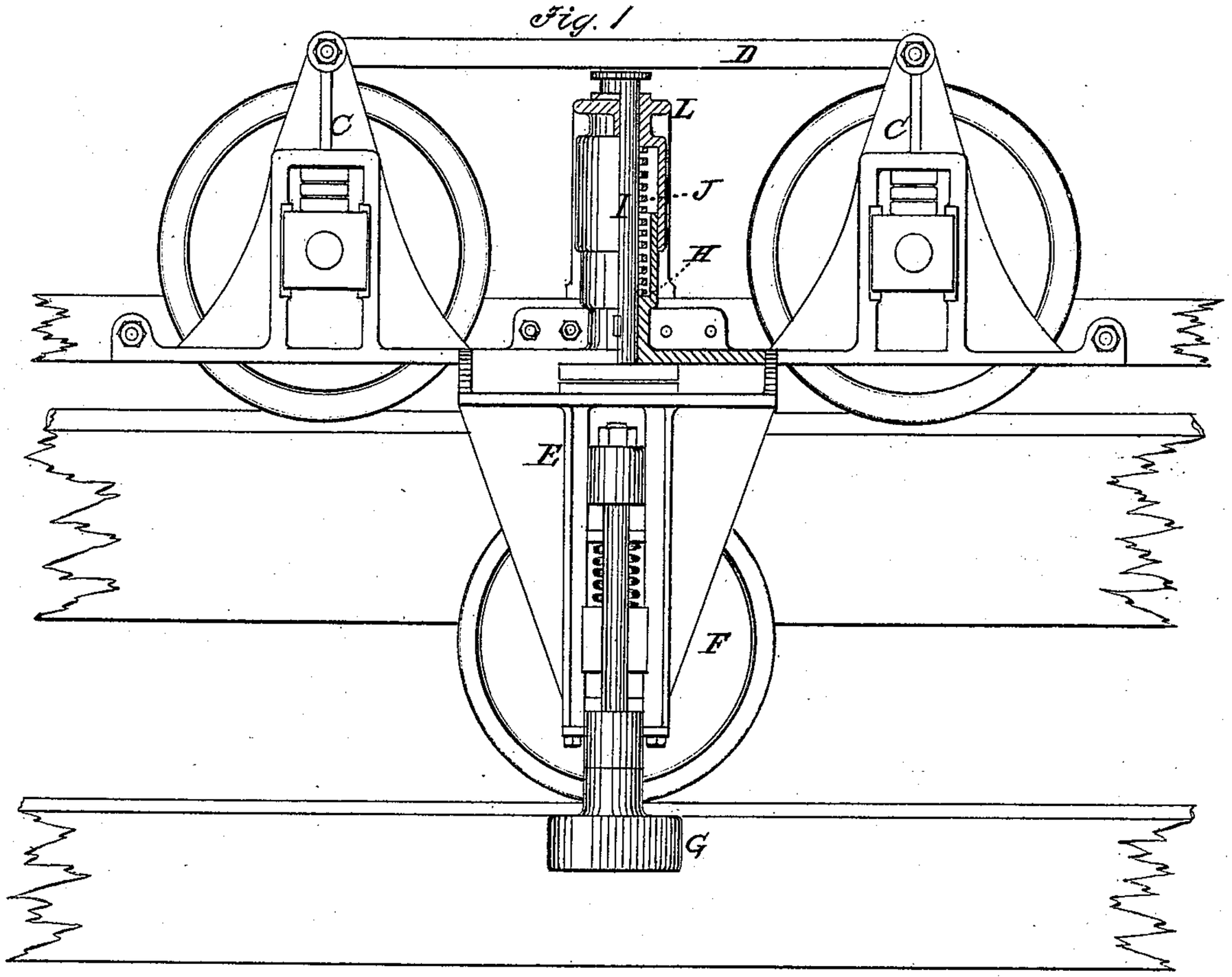
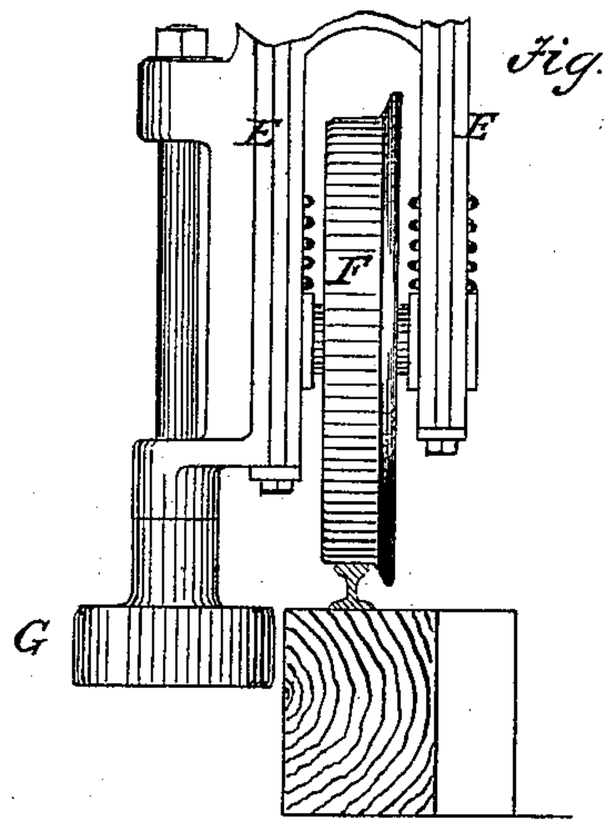


Fig. 2.



WITNESSES:

Charles F. Naish

Edward A. Powers

INVENTOR

Francis A. Bartholomew

(No Model.) 3 Sheets—Sheet 2.

F. A. BARTHOLOMEW.

CAR TRUCK.

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Fig. 3.

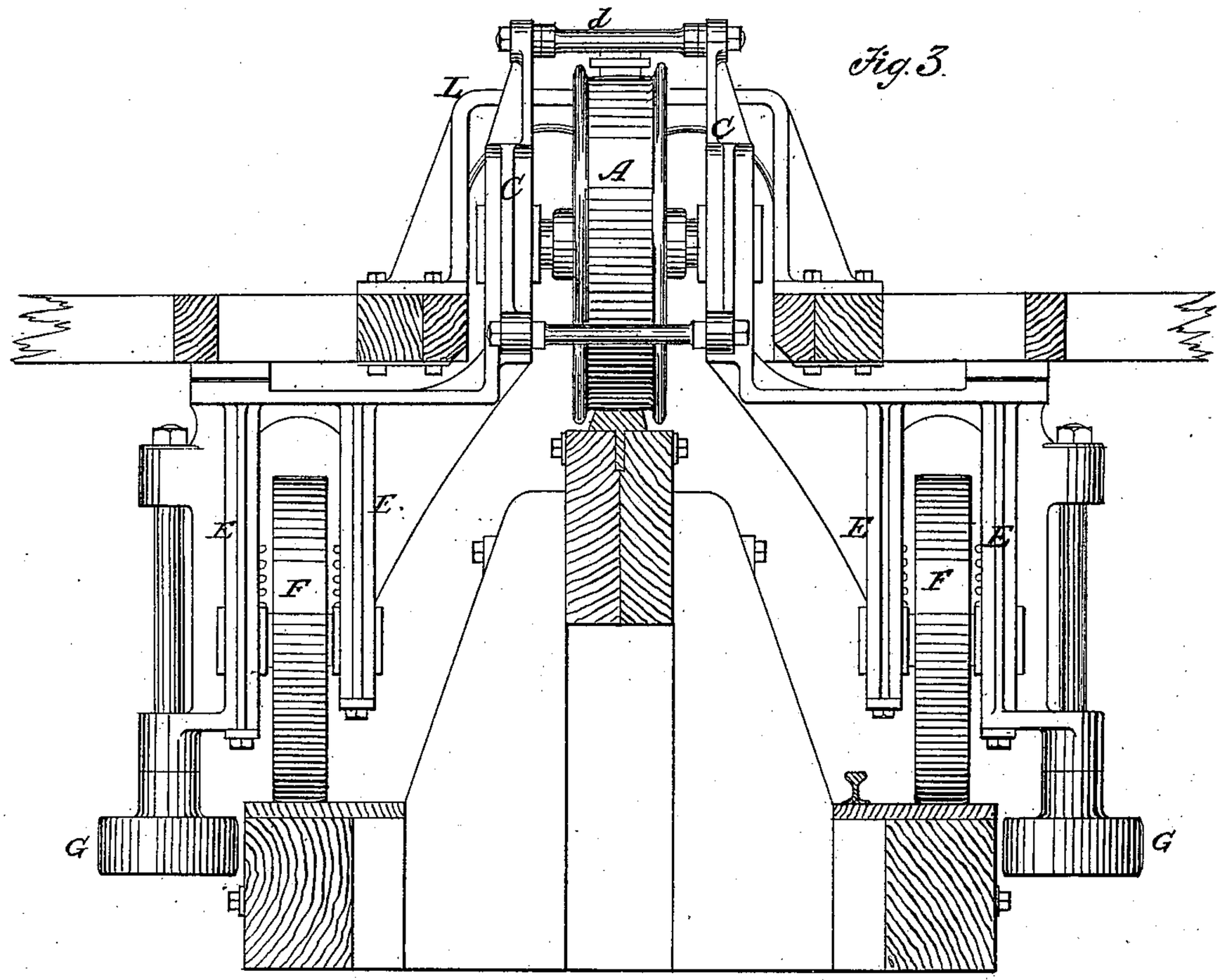
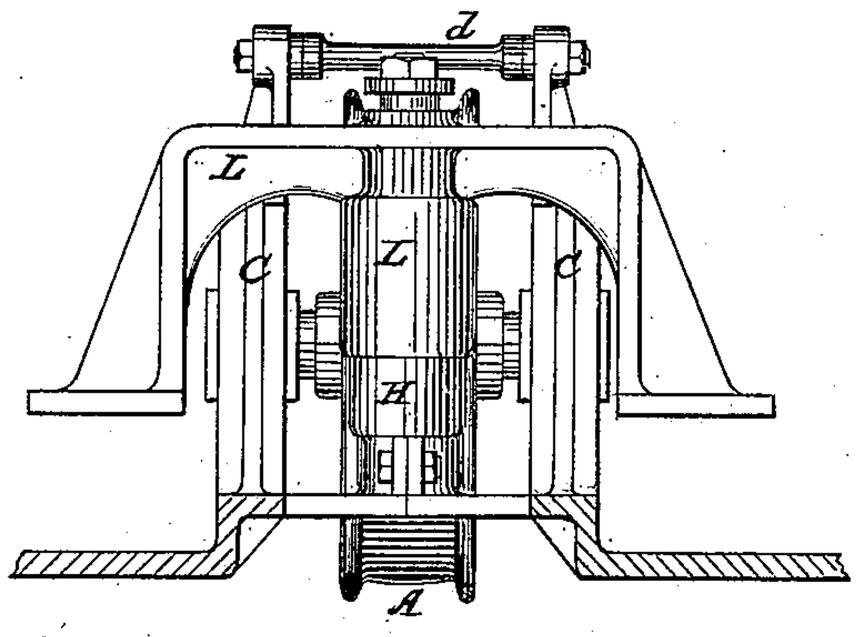


Fig. 5



WITNESSES:

Charles F. Mack

Edwd A Powers

INVENTOR

Francis A. Bartholomew

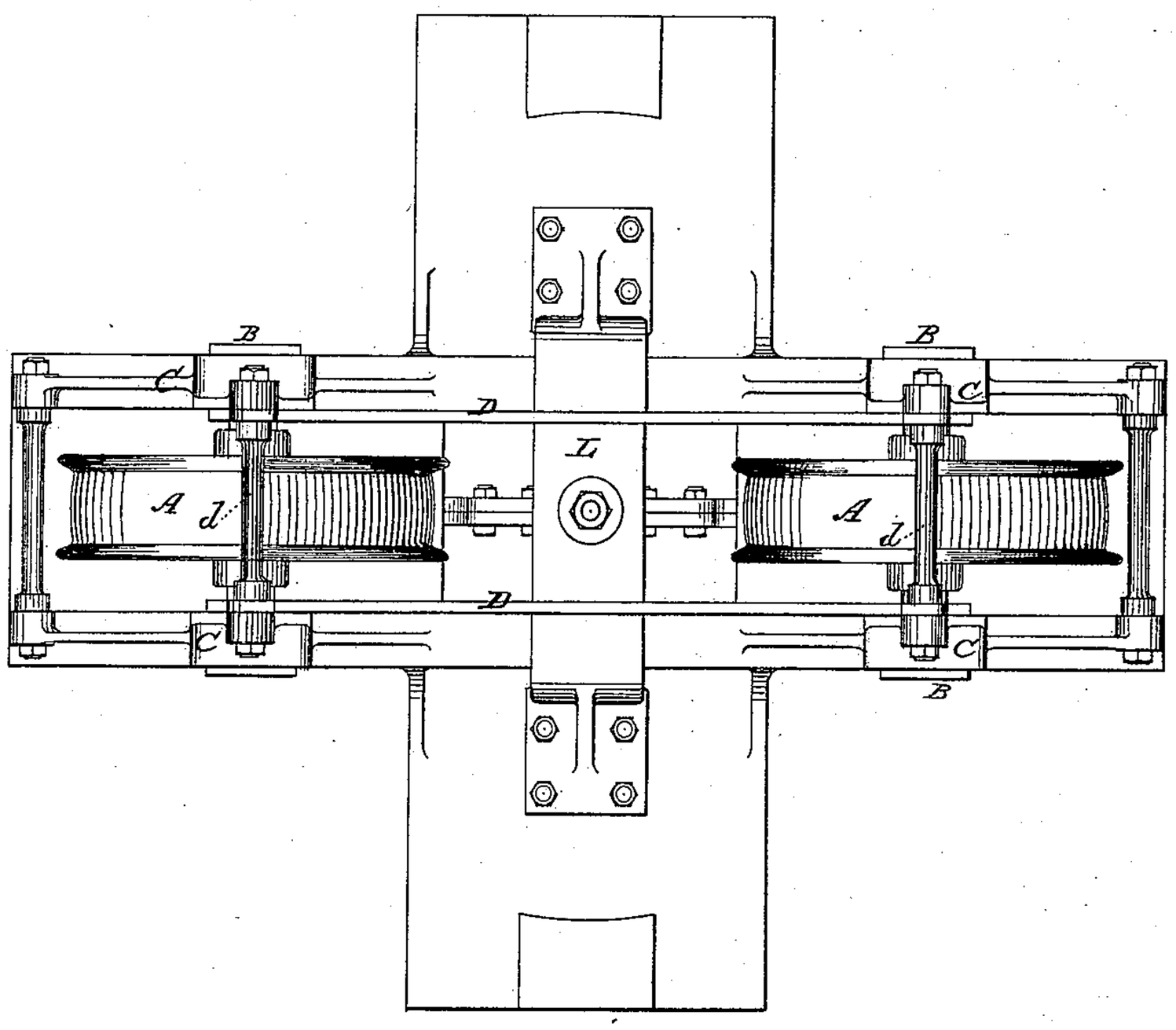
(No Model.) 3 Sheets—Sheet 3.

F. A. BARTHOLOMEW.

CAR TRUCK.

No. 336,983. Patented Mar. 2, 1886.

Fig. 4.



WITNESSES:

Charles F. Mack

Edwd. A. Powell

INVENTOR

Francis A. Bartholomew

UNITED STATES PATENT OFFICE.

FRANCIS A. BARTHOLOMEW, OF BLOOMFIELD, N. J., ASSIGNOR TO THE RILEY RAILWAY CONSTRUCTION COMPANY, OF NEW JERSEY.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 336,983, dated March 2, 1886.

Application filed June 20, 1885. Serial No. 169,327. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. BARTHOLOMEW, a citizen of the United States, residing at Bloomfield, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Trucks for Center or Single Rail Elevated Railroads, of which the following is a specification.

My invention relates to certain improvements in trucks for structures where a center or single rail is employed; and it consists in the arrangement of a pair of central sustaining-wheels, lined one in front of the other; also, a pair of balancing-wheels set midway between the sustaining-wheels, but whose centers are situated below them, and a pair of guard-wheels set horizontally, the whole of the above set of wheels being suitably mounted in a truck-frame formed so as to straddle the structure, the said truck-frame being centrally pivoted and supported on one or more spiral, volute, or other suitable springs or cushions set around the pivot-pin in such manner as to afford an easy motion to the truck and relieve it from any sudden jar or tendency to bind upon the structure.

Figure 1 represents a side elevation of truck in position on the structure, part being broken away to show construction more clearly. Fig. 2 is a modification of side balancing-wheel. Fig. 3 is an end view of the truck in position on the structure. Fig. 4 is a plan of the same. Fig. 5 is an end view of platform-bracket through the line *x y*.

Similar letters of reference indicate like parts.

Heretofore difficulty has been found in constructing trucks for cars in that class of elevated railroads in which a central supporting-rail has been used, inasmuch as it has been found impracticable to round curves of sharp radius without binding so much upon the structure as to make it unsafe.

The object of my invention is to overcome this difficulty, which I accomplish by making the truck-frame in such form as to carry wheels with varied heights of bearings and have one center pin for the truck, which shall be common to all, so that the said wheels may act harmoniously in rounding curves of any radius, and also in the setting of a spring housed around or upon the center pin of sufficient stiffness to sustain the weight of a loaded car, for the purpose of relieving any sudden jar, and by thus having the car rest mainly upon the central spring at the pivot-point it enables the car to ride with greater ease when in motion, as the tendency of cars running on a central rail is to stand evenly, similar to that of a bicycle.

In the case here presented, A A represent two broad-faced double-flanged wheels, set in line one in front of the other. These wheels are designed to bear the main weight of the car and run upon the central rail at the apex of the structure. They are journaled in boxes B B in the usual manner in the vertical brackets C C C C of the truck-frame. These brackets are stiffened by connecting-bars D D *d d*.

The truck-frame, of which the brackets C form a part, extends under the bottom of the car, (but is not attached thereto,) and has two downwardly-projecting brackets, E E, on each side of the center, as shown in Fig. 3. These brackets form a support for the boxes, in which the side bearing-wheels, F, are journaled. The said wheels F are preferably made with broad faces, and bear upon the side stringers of the structure.

The outer sides of the aforesaid brackets form a bearing for the stems of the horizontal wheels G G, which are designed to bear against the sides of the outer stringers, to prevent any possibility of derailment.

In the center of the truck-frame and extending upward therefrom there is a male stem, H, cored out so as to receive the pivot-pin I. Inside of the said stem and around the pin there is a spring, J, of suitable stiffness to carry the weight of a loaded car. This spring extends in the female head of the bridge-bracket L. The said bridge-bracket is rigidly bolted upon the upper side of the car-bottom.

In some instances it may be found preferable, instead of having the side bearing-wheels made with a plane face to make them with a flange, as shown in Fig. 2. In the latter case a light iron rail would be used on the side stringers of the structure.

It will here be observed that the bottom of

the car is brought down nearly flush with the rail at the apex of the structure, thereby insuring increased steadiness.

I am aware that patents have been granted for saddle-bag cars and car-trucks whose wheels grip the structure in such manner as to lock thereon. These I do not claim; but

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

1. In a truck for center-rail elevated railroads, a metal frame, with brackets C and E, tie-rods D *d*, and hollow pivot-stem H, for the use and purpose substantially as shown and described.

2. The combination, in a truck for center-rail elevated railroads, of the hollow stem H, pivot-pin I, bridge-bracket L, and spring J, when arranged in the manner and for the use and purpose shown and described.

3. A saddle-bag truck-frame for cars of center-rail elevated railroads, said frame supporting the car wholly above the structure, and carrying wheels of varied heights of bearings, said truck-frame being centrally pivoted, so that all the wheels thereon may act in concert, substantially as shown and described.

FRANCIS A. BARTHOLOMEW.

Witnesses:

CHARLES H. NASH,

EDWD. A. POWERS.