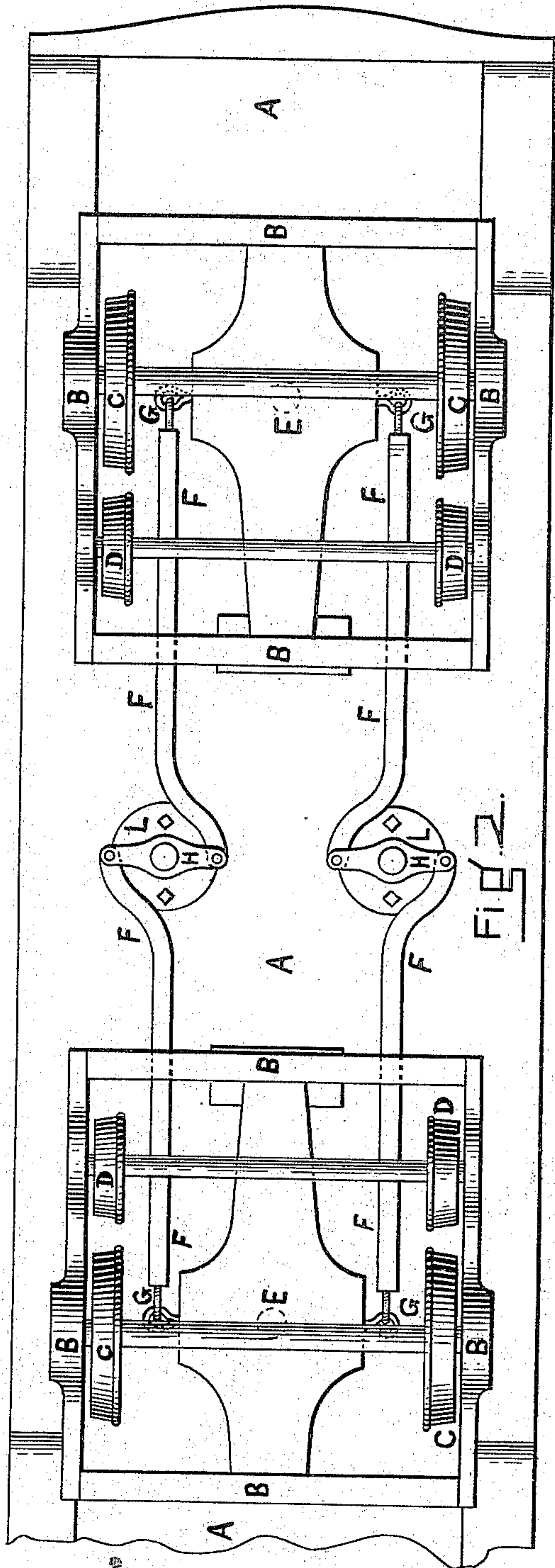
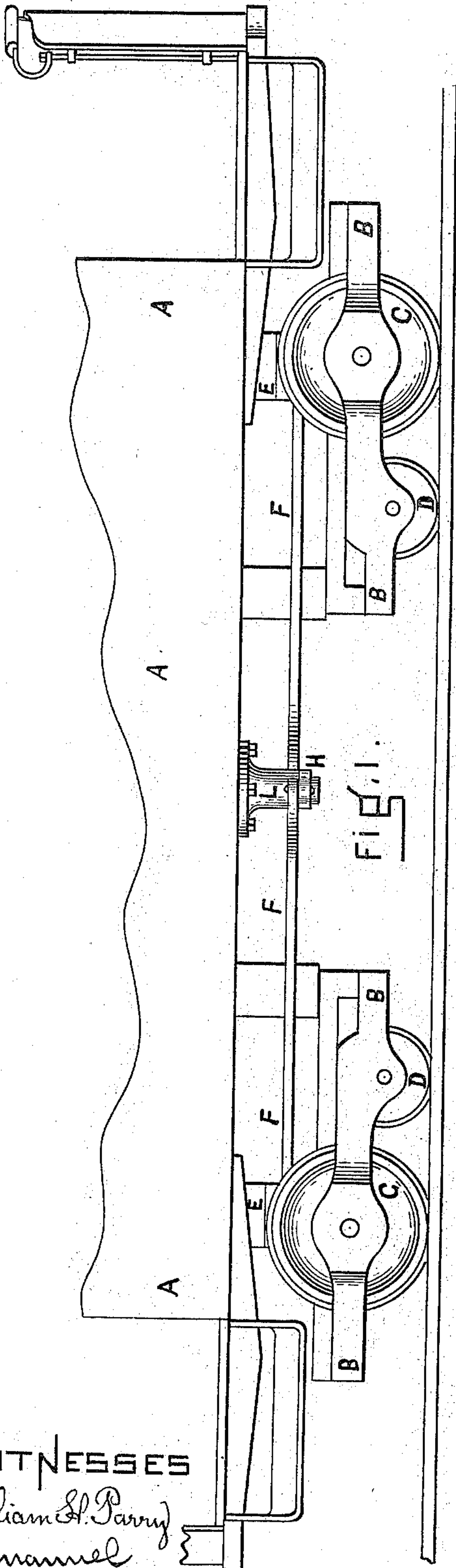


(No Model.)

H. F. SHAW.
TRUCK FOR STREET CARS.

No. 488,255.

Patented Dec. 20, 1892.



WITNESSES
William S. Parry
G. F. Emanuel

INVENTOR.
Henry F. Shaw,
By Sylvester Walker
Atty.

UNITED STATES PATENT OFFICE.

HENRY F. SHAW, OF BOSTON, MASSACHUSETTS.

TRUCK FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 488,255, dated December 20, 1892.

Application filed August 25, 1892. Serial No. 444,107. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. SHAW, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Trucks for Street-Cars, of which the following is a specification.

The object of my invention is to provide radial trucks for electric street cars, whereby the car trucks will pass around upon a curve in the rails, or tracks, without undue friction of the flanges of the truck-wheels against the rib and groove formed in the rails at the curves, or curved portion of the tracks, as usually laid around at the corners of streets running at right angles to each other, or nearly so, more or less, or at any point where short curves in the car tracks, are desirable. And it consists in the construction, combination, and arrangement of pivoted parallel connecting bars with the opposite end truck-frames, whereby the turning or radial movement of one truck-frame shall cause the opposite truck-frame to turn in the opposite direction correspondingly, so that each truck shall be brought into position to run on the radius of the segment of the same circle in the curve formed by the tracks, when passing around a curve, as hereinafter more fully described, and specifically set forth in the claim.

In the drawings hereto annexed which form a part of this specification:—Figure 1 represents a side elevation showing trucks for street cars constructed according to my invention. Fig. 2 represents a bottom plan of the truck-frames connected together as contemplated by my invention.

A represents a portion of a street car body near each end of which at the bottom, are pivoted the usual truck-frames B, having four or more driving-wheels, C or main-wheels, either end pair of which, or both pairs of which, may be connected with an electric motor, or any other means of propulsion may be employed, as now in general use for the purpose. These truck-frames B, are also provided with a pair of smaller guide, or steering-wheels D, if desired, so as to prevent the main wheels B, from swiveling around so as to leave the tracks inwardly, or centrally between the same, or other misplacement thereof.

The central support E of each truck-frame

B, is suitably pivoted to the car body as heretofore, and is provided at opposite sides with suitable pivotal connections G, to which are pivoted or loosely connected the outward ends of the parallel actuating connecting bars F, the inward ends of which are pivotally connected to the inward ends of the short pivoted cross-bars H, which are centrally pivoted to the support blocks L, rigidly secured to the under side of the car body A, as shown, or in the several equivalent manners hereinafter clearly described and contemplated in my invention. It will be seen and understood that the inward ends of the said connecting parallel actuating bars F, may be pivoted in like manner to the opposite ends of the said cross-bars H, and that the two bars H, H, may be pivoted to a single block L, to be rigidly secured to the under side of the car body centrally between the two former bars H, shown in Fig. 2, and thereby accomplish the same mechanical result, by equivalent mechanical devices, if more desirable. But I prefer to construct a horizontal rock-shaft in place of the said two pivoted cross-bars H, said rock-shaft to be provided at each end with journal, or pivotal bearings so as to permit the said parallel actuating bars F, to be connected at opposite sides of the same, the two parallel bars F, connected with one of the truck-frames as shown, the inward ends to be pivoted to opposite sides of the said rock-shaft, and the two parallel bars F, pivoted to the opposite, or other truck-frame, are in like manner pivoted to opposite sides of the said rock-shaft, so that by the turning of one truck-frame on its center, the opposite truck frame would be turned on its center in a reverse, or opposite direction, whereby the two truck-frames would be simultaneously brought into position, that the wheels thereon would run on the same curve in the track, as easily as on a straight track. It will be seen and more clearly understood by reference to Fig. 2, wherein if we turn the said block L with its short cross-bar H outwardly at the right hand, and the other block L with its short cross-bar H inwardly one quarter, so that the pivots or axes of the two bars H, will stand horizontally, instead of vertically as shown, and are secured in such position permanently, then the said truck-frames B, would be brought into

the same relative positions radially in passing around a curve, the wheels C of each truck-frame, simultaneously, or immediately upon entering a curve in the track, actuate
5 the other wheels of the opposite truck frame through the action of the forward truck frame and its wheels, in passing, or entering the first portion of the curve formed by the tracks, as constructed and now in use, so that the
10 same result would be obtained by this means as by the former method above described, without departing from the essential features of my invention.

Having thus described my invention what
15 I claim and desire to secure by Letters Patent is:—

Street car truck-frames connected together

by parallel bars pivoted at their outward ends to the opposite truck-frames, and their inward ends pivoted to the opposite ends of
20 short cross-bars pivoted to the car body, whereby the turning of one truck on entering a curve in the track shall cause the other truck to turn in the opposite direction, so as to bring both trucks radially on a segment of
25 the same circle, substantially as set forth.

In testimony whereof I have signed my name, this 24th day of May, 1892, in presence of two witnesses.

HENRY F. SHAW.

Witnesses:

SYLVENUS WALKER,
WILLIAM H. PARRY.