(No Model.) 2 Sheets—Sheet 1.

W. SUTTON.

STREET CAR.

No. 556,287. Patented Mar. 10, 1896.

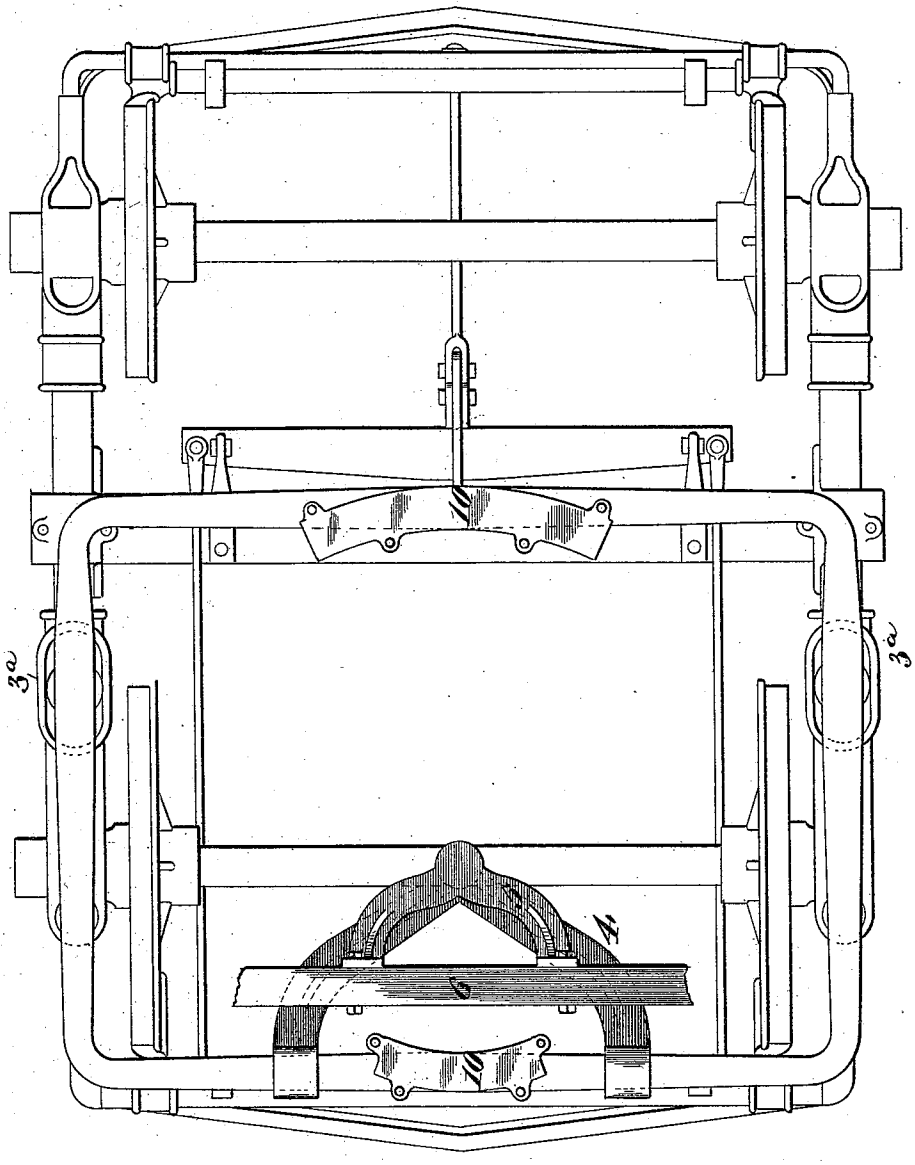

Fig. 1.

Attest:

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Stanley Stoner

Inventor:

Wm. Sutton

By Knight Bros

Atty's

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(No Model.) 2 Sheets—Sheet 2.

W. SUTTON.

STREET CAR.

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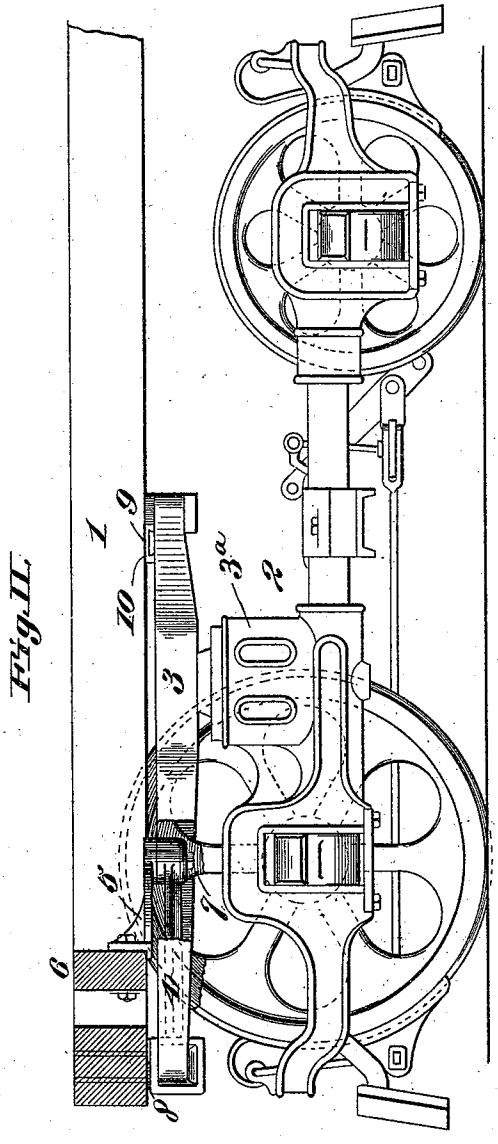

Fig. II.

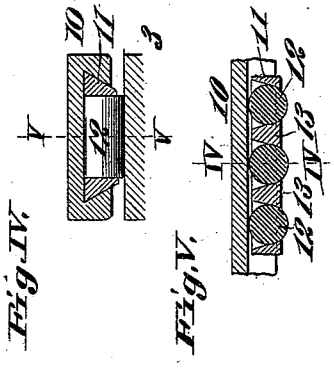

Fig. IV.

Fig. V.

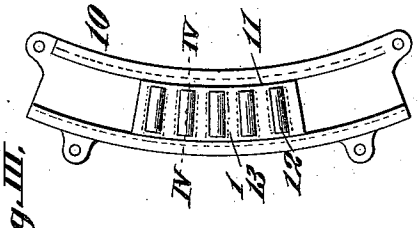

Fig. III.

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UNITED STATES PATENT OFFICE.

WILLIAM SUTTON, OF ST. LOUIS, MISSOURI.

STREET-CAR.

SPECIFICATION forming part of Letters Patent No. 556,287, dated March 10, 1896.

Application filed March 26, 1895. Serial No. 543,291. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SUTTON, a citizen of the United States, and a resident of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Pivotal Connections for Railway-Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improved means for pivoting the trucks of a car to the car-body or car-body-supporting frame; and my invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a top or plan view of my improved pivotal connection for railway-trucks. Fig. II is a side elevation with a portion of a car-body. Fig. III is a bottom view of the antifriction-bearing. Fig. IV is an enlarged transverse section taken on line IV IV, Fig. III, or on the same line, Fig. V. Fig. V is a vertical section taken on line V V, Fig. IV.

Referring to the drawings, 1 represents part of a car-body or part of a frame adapted to support a car-body.

2 represents a truck, which may be of any ordinary construction, and 3 the car-body-supporting frame. Secured to the front part of the body-frame is a yoke 4 that extends inwardly to a point approximately over the front axle of the truck. This yoke 4 lies beneath a yoke 5 secured to the car body or frame 1 and is preferably secured to a cross-strip 6 of the body or frame. This yoke also projects in an inwardly direction, its inner end bearing upon the inner end of the yoke 4 and connected thereto by a bolt or rivet 7. (See Fig. II.) This pivotal point 7 between the yokes is, as will be seen, over or approximately over the front axle of the truck, so that the pivot upon which the truck turns is on a vertical line or approximately vertical line with the point of bearing between the truck-wheels and the rails of the track, so that the connection between the truck and car-body affords little resistance to the pivoting of the parts in rounding curves, and my arrangement not only affords for this location of the pivot, but also leaves plenty of room for the mounting of the motor of an electric car, and the device is also inexpensive and durable.

While the pivotal connection between the frame 3 and the car-body is on a vertical line or an approximately vertical line drawn through the front axle of the truck, still there is a bearing between the frame 3 and the car-body at 8 and between the frame 3 and the car-body at 9, these points 8 and 9 forming the supporting-points between the frame 3 and the car-body, and thus a firm support is afforded to the car-body and pressure is exerted on the rear wheels of the truck as well as on the front wheels, thereby keeping the former as well as the latter always upon the rails of the track, and to facilitate the keeping of the rear wheels upon the track I form a spring-bearing 3^a between the truck-frame and the frame 3 on each side of the truck, as shown in Figs. I and II. By extending the yoke 4 inwardly from the front bar or side of the frame 3 the device forms a pivotal bearing between the car-body and the frame 3 at a point remote from the car-body-supporting points 8 and 9 and does not interfere materially with the open feature of the frame, but maintains this feature, affording free access to the motor.

The body-frame 3 has sliding bearings at 8 and 9 with the car-body or body-frame 1, and to diminish friction at this point I secure plates 10 to the car-body 1, (see Figs. II, III, and IV,) and dovetail into these plates a sliding block 11, in which is inserted friction-rollers 12 held in place—preferably by cross-ribs 13 on the block 11, as shown in Fig. V. These rollers bear against the end bar of the truck-frame, and the blocks 11 slide in the plates 10, as the body pivots on its bearing 7.

It will be observed that the car-body bears against the ends only of the frame 3 and does not touch the sides of the frame, so that when the car passes over an uneven track the vertical oscillation of the track does not tend to wrench or strain the car-body.

I claim as my invention—

1. The combination of a car-body, a body-supporting frame having pivotal connection with the car-body approximately in a vertical line with the car-axle, and a truck-frame upon which said body-frame is mounted;

said body-frame having points of support at its ends only with the car-body remote from the pivotal connection between the frame and body, substantially as set forth.

2. The combination of a car-body, supporting a truck-frame, a body-frame mounted on the truck-frame and extending forward and back of the front axle of the truck, and a pivotal connection between the car-body and body-frame at an approximately vertical line with said car-axle; said car-body being supported on the ends only of said body-frame at points remote from said pivotal connection; substantially as set forth.

3. The combination of a truck-frame, an open body-frame supported by the truck-frame, a yoke or bracket extending inwardly from the front bar of said body-frame to a point approximately over the front axle of the truck, a car-body having pivotal connection with the inner end of said yoke or bracket, and bearings between the car-body and the inner and outer bars of said body-frame; substantially as set forth.

4. The combination of a truck-frame, an open body-frame extending forward and backward of the front axle and having a point of bearing upon the truck-frame back of the front axle, a car-body, a pivotal connection between the car-body and the body-frame approximately in a vertical line with said axle, and bearings between the car-body and the inner and outer bars of said frame; substantially as and for the purpose set forth.

5. The combination of a car-body, a yoke secured to the car-body and extending in an inwardly direction, a car-truck, an open frame supported by the car-truck and upon which the car-body rests, and a yoke extending inwardly from the front bar of said open frame and pivoted to the inner end of said body-yoke; substantially as set forth.

6. The combination of a car-body, having an inwardly-projecting yoke, the plates secured to the car-body, blocks dovetailed into the plates, friction-rollers mounted in said blocks, and a car-truck having an inwardly-projecting yoke and pivotal connection with the car-body through the yokes, the said rollers being adapted to bear against the frame of the truck; substantially as set forth.

In testimony whereof I have hereunto set my hand this 23d day of February, 1895.

WILLIAM SUTTON.

In presence of—
W. FINLEY,
STANLEY STORER.