L. H. WEST.

RAILWAY CARRIAGE.

No. 49,942. Patented Sept. 12, 1865.

Fig. 1.

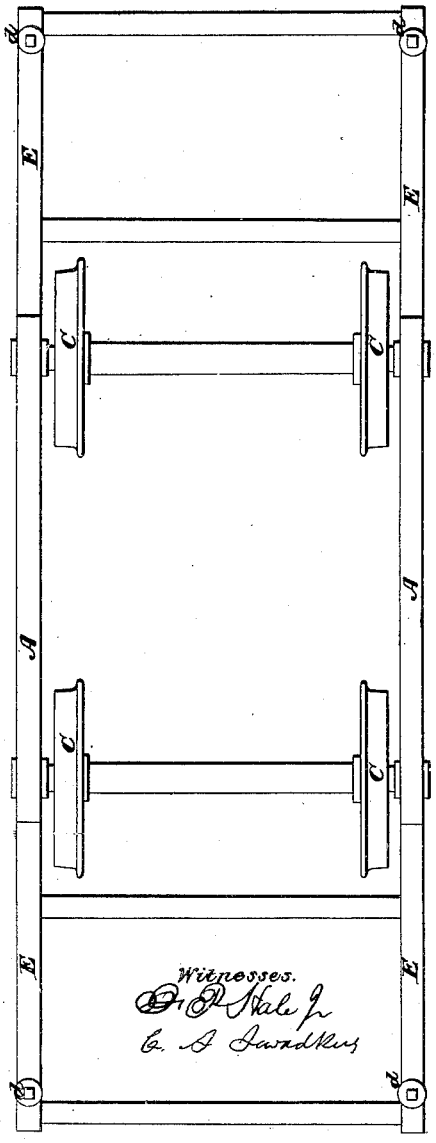


Fig. 2.

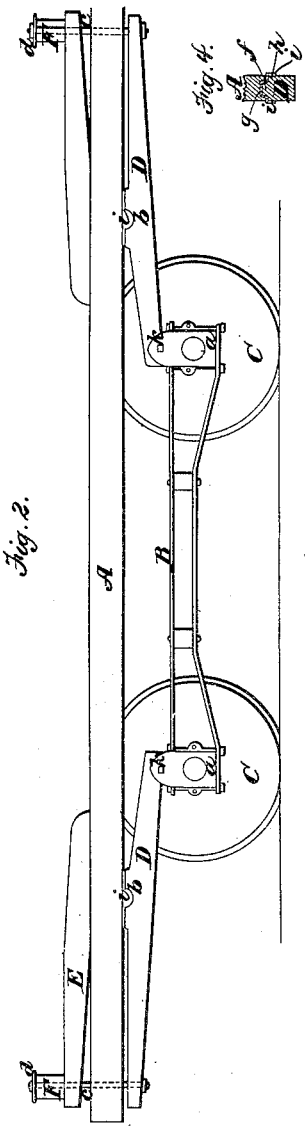
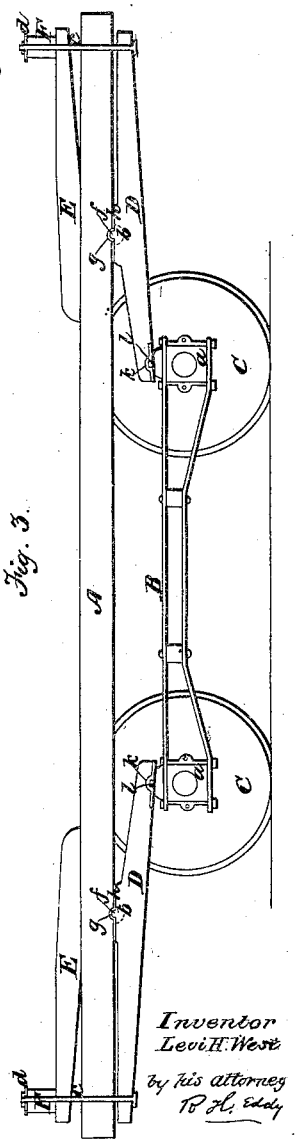


Fig. 4.

Fig. 3.



UNITED STATES PATENT OFFICE.

LEVI H. WEST, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVED RAILWAY-CARRIAGE.

Specification forming part of Letters Patent No. **49,942**, dated September 12, 1865.

To all whom it may concern:

Be it known that I, LEVI H. WEST, of Cambridge, in the county of Middlesex and State of Massachusetts, have made a new and useful invention having reference to Street or Horse Railway Cars or Carriages; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 a side elevation, of a carriage truck and platform frame provided with my improvement. Fig. 3 is a longitudinal section taken through the axle-boxes, the truck-frame, and the said platform-frame.

The nature of my invention consists in a peculiar arrangement of levers and springs relatively to the truck and platform. This arrangement differs materially from what is shown and described in the specification and drawings of the three Letters Patent of the United States numbered 38,726, 44,278, and 47,143, the first and second of which were granted to Alfred Bridges and the third to True West, for in neither of the carriages described in such specifications do we find levers and springs arranged with reference to the truck-frame and the platform, in manner as hereinafter described.

In the said drawings, Figs. 1, 2, and 3, the platform-frame of the car or carriage body is represented at A and the truck-frame at B. The said truck-frame has two axle-boxes, *a a*, on each side of it, which are fixed within and make part of it. These boxes receive in the ordinary manner the journals of the next adjacent wheels, C C. Underneath each side of the platform are two levers, D D, which at their inner ends bear on the truck-frame and directly over the boxes *a a*. The fulcra *b b* of these levers are supported by the platform-frame and are arranged with reference to the truck-frame, in manner as shown in the drawings. A rod, *c*, passes through and upward from the outer end of each lever, and through the platform-frame and a bar-spring, E, or through the same and a cylindrical spring, F, such rod being suspended from the top of the spring by having a head to bear on a cap-plate, *d*, resting on such spring.

The auxiliary or bar spring may be dispensed with and the rubber spring be made to rest directly on the platform instead of on the bar-spring.

At the fulcrum of each lever there is a projection, *f*, which enters a corresponding hole, *g*, made in the bearing *h* of the lever. Furthermore, the said bearing is provided with lips *i i*, to extend from it and down a short distance alongside of the lever, the same being as exhibited in Fig. 2, and also in Fig. 4, which is a transverse section of the lever and bearing. There is also at the bearing of each lever D on the axle-box a projection or pin, *k*, which goes across the box and enters a corresponding recess, *l*, made in the lever, the whole being to keep the lever in place against the axle-box and platform-frame.

By my arrangement the springs are disposed above the platform-frame and come into the space that is underneath the side seat of the car. In this way they are completely protected from snow, ice, dirt, or water when raised by and thrown from the wheels. When the springs are underneath the platform they are more or less exposed to snow or water thrown on them by the wheels. Such snow or water, when frozen on them, will more or less impede their action. Other important advanvages of my arrangement will be easily perceptible to persons skilled in the art to which it appertains.

I do not claim either of the inventions described in the aforementioned patents; but

I claim as my invention or improvement—

The arrangement of levers D D and the spring or springs of each with the platform-frame A and the truck-frame B, the same being substantially as and so as to operate as specified.

LEVI H. WEST.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.