

G. SIEGL.
Carriages for Tramways.

No. 149,796.

Patented April 14, 1874.

Fig. 1.

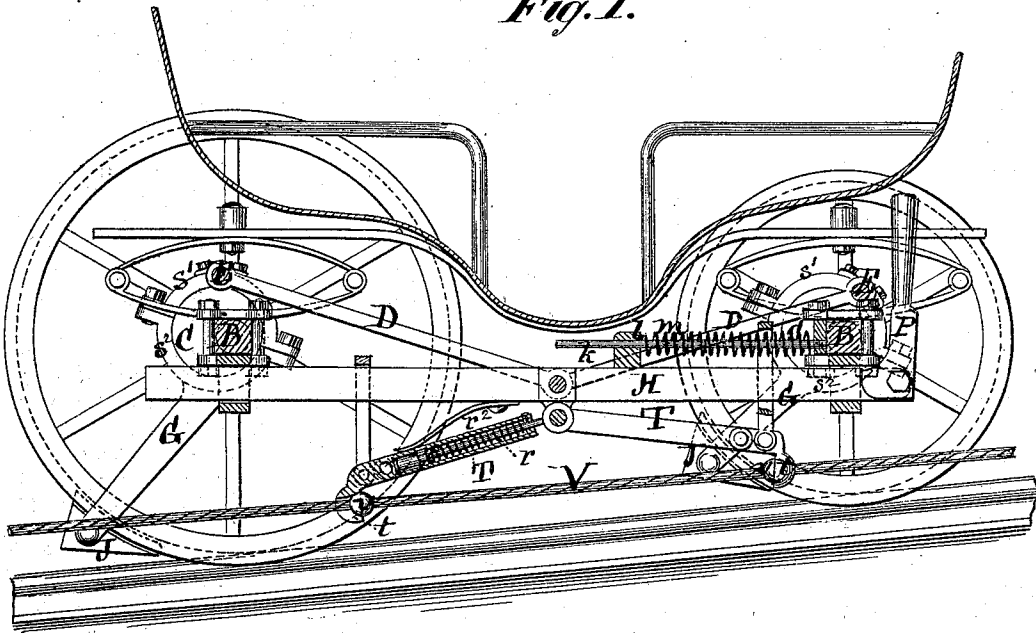
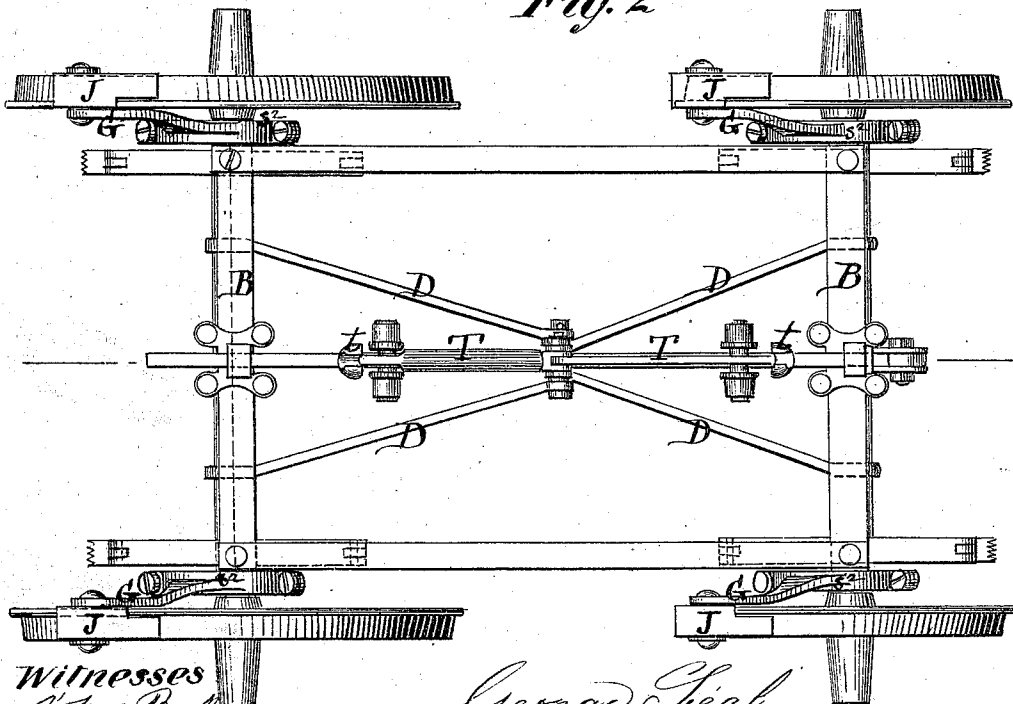


Fig. 2.



Witnesses
John Becker
Fred Warner

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UNITED STATES PATENT OFFICE.

GEORG SIEGL, OF VIENNA, AUSTRIA.

IMPROVEMENT IN CARRIAGES FOR TRAMWAYS.

Specification forming part of Letters Patent No. **149,796**, dated April 14, 1874; application filed March 13, 1874.

To all whom it may concern:

Be it known that I, GEORG SIEGL, of Vienna, in the Empire of Austria, have invented certain Improvements in Carriages for Tramways, &c., of which the following is a specification:

My invention consists in the combination of a draft-rod under the body and axles of the carriage with a series of eccentric disks on the axles, connected by bars with the brake-shoes. The invention consists, further, in a pivoted elastic bar attached to the draft-rod, and engaging with the rope by which the carriage is propelled.

In the accompanying drawing, Figure 1 is a longitudinal vertical section. Fig. 2 is a bottom view.

The axles B are rigidly attached to the carriage, and the wheels revolve thereon. Between the wheel and the body of the carriage, near each end of each axle, is a disk, C, arranged eccentrically on the axle. Above the axle is a rod, E, which connects two rings or bands surrounding the disks C. From near the ends of each axle, bars D extend to the center of a draft-rod, H, arranged under the body of the carriage, and sliding in loops or keepers attached to the axles. From the under portions of the eccentric pulleys C, arms G extend downward and backward, and on their outer or lower ends are pivoted brake-shoes J, which are of triangular shape, one side being curved to correspond with the periphery of the wheel, and another side being straight to correspond with the upper surface of the rail or tramway, and forming an acute angle with the curved side. On the upper side of the draft-rod is an eye for perforated lug *l*, in which works one end of a bar, *k*, the other end of which is attached to the front axle. This bar is surrounded by a spring, *m*, one end of which bears against the axle, and the other end against the lug *l*. On the front end of the draft-rod H is a cam-lever, P, to be operated by hand. Surrounding each of the eccentric disks C is a ring or band composed of two semicircular halves, *s*¹ *s*², to the upper one of which the bar E is attached, and to the lower one is attached the bar G.

When the cam-lever P is turned up to the position shown in Fig. 1, the draft-rod is drawn forward relatively to the axles and carriage-body, moving the rods E in a forward direction, causing the bands or rings *s*¹ *s*² to rotate on the disks C, and raising the brake-shoes J from contact with the rails and the peripheries of the wheels. This lever P is only used when the carriage is propelled by other means than the rope. When the rope is used, it engages with a pivoted elastic bar, T, which is attached by its inner or upper end to the draft-rod H, and has on its outer or lower end a claw, *t*, which grasps a ball or knot, *v*, on the rope V. As the rope moves forward, the knot *v* engages with the claw *t*, and draws the rod H forward relatively to the axles and body of the carriage, raising the brake-shoes from contact with the rails and wheels in the same manner as described in the operation of the cam-lever.

The bar T incloses or is surrounded by a spiral spring, *r*, and has a spring rod, *r*², between it and the draft-rod H, thus rendering it elastic longitudinally, and allowing it to rise and fall to correspond with the height of the rope.

When the carriage is designed to run in both directions it is provided with two sets of the mechanism above described.

The rope passes around pulleys located at suitable points, and is provided with guiding-pulleys where it passes around curves.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the draft-rod H, eccentric disks C, connecting-bars D, and brake-shoes, substantially as and for the purpose shown and described.

2. The combination of the draft-rod H, pivoted elastic bars T, and knotted rope V, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of October, 1873.

GEORG SIEGL.

Witnesses:

HERMANN MÜLLER,
HEINRICH COLLMANN.