

No. 827,362.

PATENTED JULY 31, 1906.

H. GUMMI.

TRUCK FOR RAILWAY AND TRAMWAY VEHICLES.

APPLICATION FILED DEC. 12, 1905.

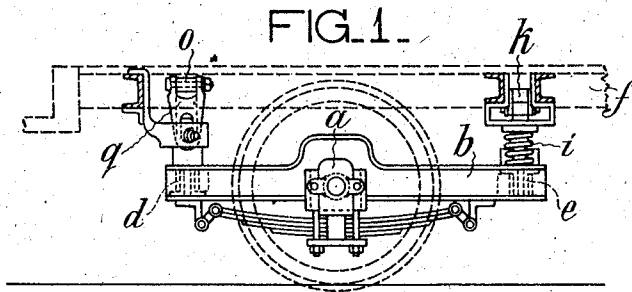


FIG. 5.

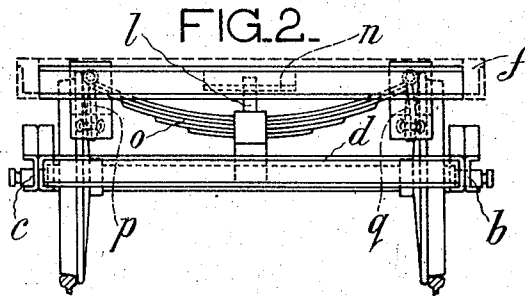
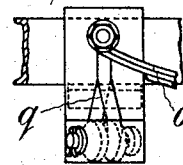


FIG. 6.

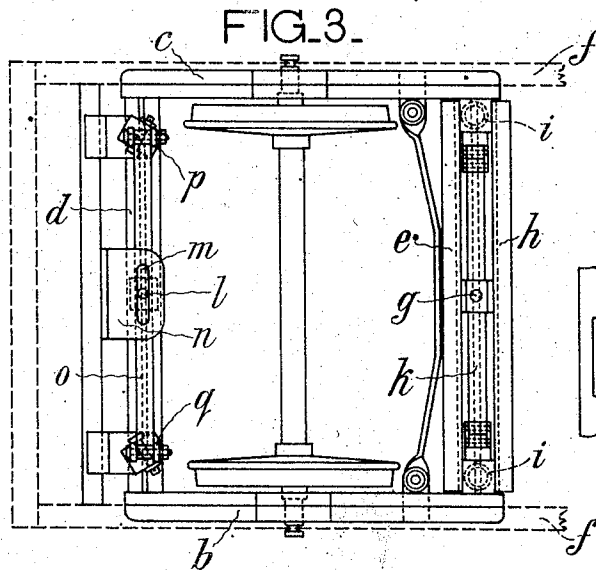
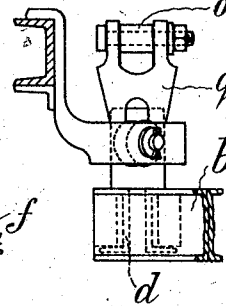
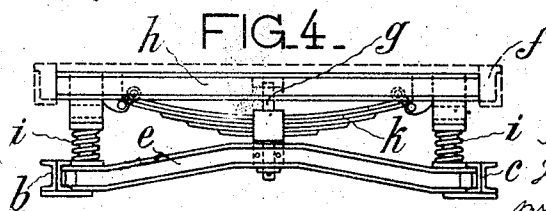
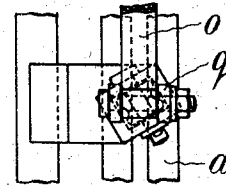


FIG. 7.



Witnesses:  
N. Brown  
Walter H. Harris

Inventor:  
H. Gummi  
by H. A. de Vos  
Attorney

# UNITED STATES PATENT OFFICE.

HANS GUMMI, OF BAUTZEN, GERMANY.

## TRUCK FOR RAILWAY AND TRAMWAY VEHICLES.

No. 827,362.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed December 12, 1905. Serial No. 291,435.

*To all whom it may concern:*

Be it known that I, HANS GUMMI, a subject of the King of Bavaria, residing at 8 Albertstrasse, Bautzen, in the Kingdom of Saxony and Empire of Germany, have invented new and useful Improvements in Trucks for Railway and Tramway Vehicles, of which the following is a specification.

This invention relates to single-axle swivel-trucks for railway and tramway vehicles which comprise a frame adapted to move about the axle-boxes, said frame being connected with the body of the carriage or wagon so as to be capable of spring-controlled transverse movement at one head or end and of turning movement about the vertical central pivot.

According to this invention use is made of a plate-spring for connecting the frame and the body of the carriage or wagon so as to be movable in the transverse direction, the said spring being arranged in such a manner that its normal position corresponds to the central position of the swivel-truck, which when swinging to one or the other side is thus always moved back by the plate-spring to its central position.

By the use of the plate-spring the advantage is gained that it will not be necessary, as was heretofore the case, to employ two draw-springs acting in opposite directions for placing the truck in the central position and that at the same time the support of the body of the carriage or wagon will be effected through the medium of the adjusting-spring.

In the accompanying drawings a constructional form of the invention is represented.

Figure 1 is a side view, Fig. 2 a front view, Fig. 3 a plan, and Fig. 4 a rear view, of the improved single-axle swivel-truck. Figs. 5 to 7 are three different views showing the mode of connecting the ends of the adjusting-spring.

The frame of the swivel-truck comprises the two sides *b* and *c*, carrying the axle-boxes *a*, and the heads or ends *d* and *e*, these heads or ends being connected with the body *f* of the carriage or wagon.

In the vertical central axis of the head or end *e* there is a pivot *g*, fixed in the latter and engaging with a corresponding hole in the transverse beam *h* of the body of the carriage or wagon. By this means the swivel-truck is adapted to be turned in the well-

known manner about the vertical central pivot at the head or end *e*.

The body of the carriage or wagon is placed in the well-known manner upon spiral springs *i*, arranged vertically at the sides. In the arrangement shown a plate-spring *k* is provided, the ends of which are fixed by means of simple plates to the body of the carriage or wagon. The other head or end *d* has at the center a vertical pin or bolt *l*, engaging with a transverse slot *m* in a guide-piece *n*, fixed to the body of the carriage or wagon. The slot *m* limits the turning movement of the truck relatively to the body of the carriage or wagon to either side.

The single plate-spring *o*, serving to place the truck in the central position and at the same time to support the body of the carriage or wagon upon the swivel-truck, is fixed immovably to the head or end *d*, while its extremities are connected with the body of the carriage or wagon, so that it can move transversely to the longitudinal axis of such carriage or wagon. For this purpose the body of the carriage or wagon is suspended from the ends of the springs by means of transverse plates *p* *q*, Figs. 5 to 7, the length of which is such as to permit of the requisite transverse movement of the swivel-truck.

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

1. In a single-axle swivel-truck of the character described, a frame adapted to move about the wheel-axle, a vertical pivot in the middle of one head of the frame, and a bore provided for the said pivot in the body of the carriage, in combination with a transverse spring arranged at the opposite head of the frame and serving to connect the latter head of the frame with the body of the carriage so as to be movable transversely, said spring being fixed firmly in the middle to one of the parts united by same, and by its ends to the other parts so as to be movable in every direction, substantially as and for the purpose herein set forth.

2. In a single-axle swivel-truck of the character described, a frame adapted to move about the wheel-axle, a vertical pivot in the middle of one head of the frame, and a bore provided for the said pivot in the body of the carriage, in combination with a transverse spring between this head of the frame and the body of the carriage, and a transverse

spring arranged at the opposite head of the frame and serving to connect the latter head of the frame with the body of the carriage so as to be movable transversely, said spring being fixed firmly in the middle to one of the parts united by same, and by its ends to the other parts so as to be movable in every direction, substantially as and for the purpose herein set forth.

3. In a single-axle swivel-truck of the character described, a frame adapted to move about the wheel-axle, a vertical pivot in the middle of one head of the frame, and a bore provided for the said pivot in the body of the carriage, in combination with a transverse spring between this head of the frame and the body of the carriage, a transverse spring arranged at the opposite head of the frame and serving to connect the latter head of the frame with the body of the carriage so as to be movable transversely, said spring being fixed firmly in the middle to one of the parts united by same, and by its ends to the other parts so as to be movable in every direction, a vertical guide-bolt at the head of the frame opposite the pivot of such frame, and a horizontal transverse guide-slot provided in the

body of the carriage for the said guide-bolt, substantially as and for the purpose herein set forth.

4. In a single-axle swivel-truck of the character described, a frame adapted to move about the wheel-axle, a vertical pivot in the middle of one head of the frame, and a bore provided for the said pivot in the body of the carriage, in combination with a transverse spring arranged at the opposite head of the frame and serving to connect the latter head of the frame with the body of the carriage so as to be movable transversely, said spring being fixed firmly in the middle to one of the parts united by same, and transverse plates at the ends of the transverse spring for connecting the same with the other parts united by same, substantially as and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HANS GUMML.

Witnesses:

PAUL E. SCHILLING,  
PAUL ARRAS.