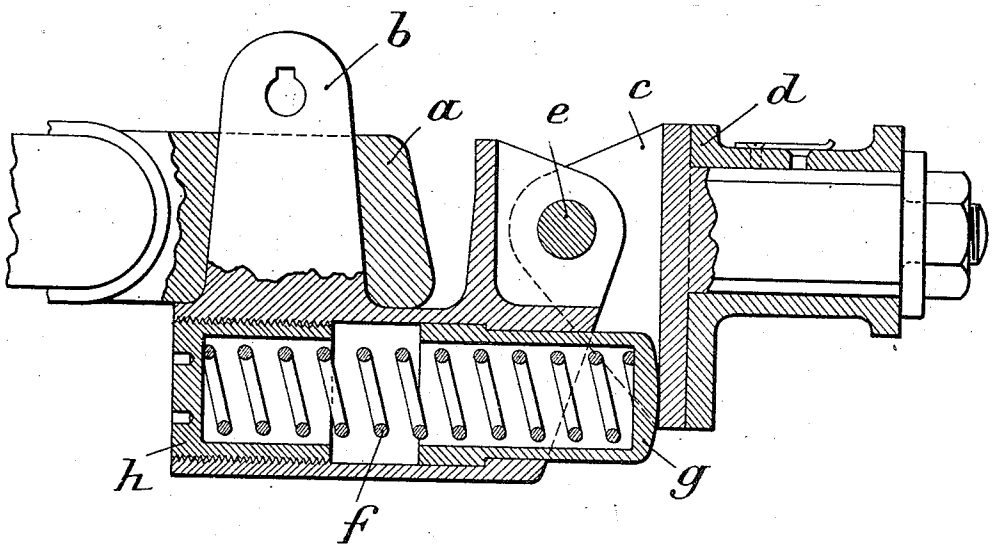
E. STEINHART.

SPRING COUPLING.

APPLICATION FILED JUNE 30, 1914.

1,119,767.

Patented Dec. 1, 1914.



WITNESSES

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EUGEN STEINHART, OF DUSSELDORF, GERMANY.

SPRING-COUPLING.

1,119,767. Specification of Letters Patent. Patented Dec. 1, 1914.

Application filed June 30, 1914. Serial No. 848,295.

To all whom it may concern:

Be it known that I, EUGEN STEINHART, a subject of the German Emperor, residing at 81 Schlosstrasse, Dusseldorf, Germany, have invented certain new and useful Improvements in Spring-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to couplings between front and rear or the trail and limber portions of vehicles.

According to the invention the pole of the carriage is held in balance while free to move. Hitherto this has been attained at the best by an arrangement comprising several links and springs, the latter being compressed or expanded as the pole moves up and down.

In other constructions the coupling part and the abutment against which it is drawn by the spring are commonly pivoted on the vehicle. In this manner the coupling turns easily and so is easily operated, the heavy blows that occur when traveling or when inclining the axle or the vehicle are only braked or reduced slightly, namely corresponding to the pull. In order to remove this last disadvantage the limber hook has been constructed as a bell crank lever, which swings around a horizontal pin on the draw bar and is spring urged against a support. Strong springs are necessary for this purpose the compression of which causes difficulties, especially as these springs are as a rule in the most inaccessible places. When a spring has to be changed owing to a breakage great difficulties are experienced. The present invention avoids these difficulties by arranging the spring in a sleeve, against which one end of the spring bears, while the other end of the spring is supported by an adjustable tension regulating cap.

In the accompanying drawing the coupling is shown in longitudinal section, *a* being the limber eye with which the conically shaped and easily movable limber hook *b* engages. This hook *b* is pivoted by a bolt *e* in the extension *c* of the fixed limber hook bearing *d*. The lower part of the limber hook *b* is constructed as a spring casing, one end of the spring *f* bearing against a buffer *g* capable of longitudinal movement relatively to the casing while the other end of the spring bears against the end of the cap or sleeve-like member *h* which is screwed in the casing.

By this construction of coupling it is possible to remove the comparatively great downward pressure of the coupling while as the coupling rises the spring is inactive.

I claim as my invention:

1. A coupling for vehicles of the trail and limber type comprising a coupling member having a casing, a support to which said member is pivotally connected, a spring-pressed buffer in one end of said casing designed to bear against said support, and a cap for closing the other end of said casing.

2. A coupling for vehicles of the trail and limber type comprising a coupling member having a casing, a support to which said member is pivotally connected, a buffer fitted in one end of said casing and having a limited movement therein, a spring for forcing the outer end of said buffer in position for engagement with said support, and a cap in the other end of said casing for regulating the tension of said spring.

3. A coupling for vehicles of the trail and limber type comprising a coupling member having a casing, a support to which said member is pivotally connected, a tubular buffer in one end of said casing, a hollow screw cap for closing the opposite end of said casing, and a coiled spring between said buffer and said cap for forcing the former outwardly in position for engagement with said support.

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

EUGEN STEINHART.

Witnesses:

LOUIS VANDORY,

GUSTAV BROCKSCHMITZ.