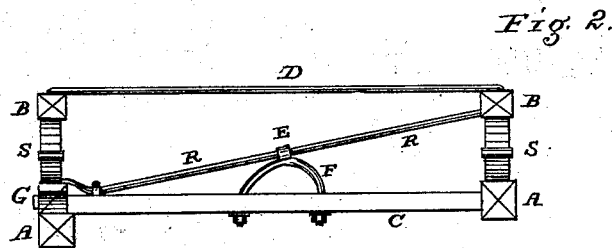
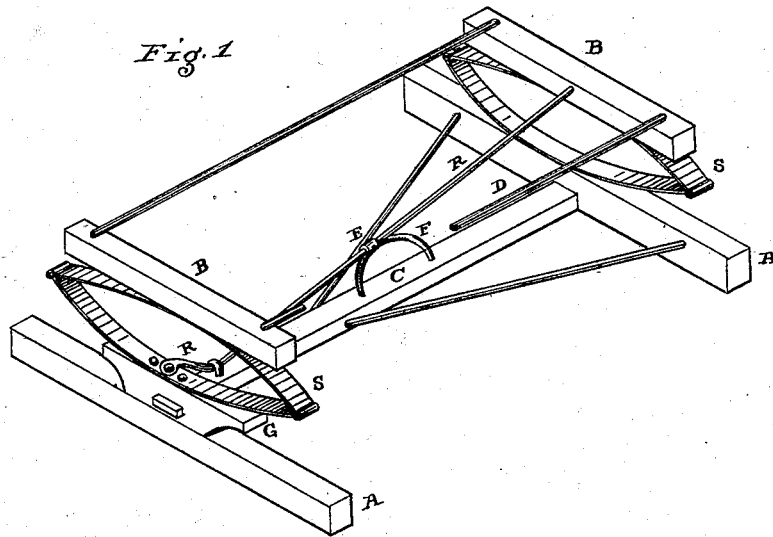


G. PEIRCE.

Stay for Spring-Vehicles.

No. 215,537.

Patented May 20, 1879.



Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORGE PEIRCE, OF BART TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA.

## IMPROVEMENT IN STAYS FOR SPRING-VEHICLES.

Specification forming part of Letters Patent No. **215,537**, dated May 20, 1879; application filed June 28, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE PEIRCE, of Bart township, in the county of Lancaster, State of Pennsylvania, have invented certain Improvements in Spring, Stay, and Bolt Protectors in Vehicles, of which the following is a specification.

The object of this invention is to provide an eyed bearing on an arched fulcrum, which is attached centrally upon the ordinary coupling. The main stay-rod, connected at each end with the elliptic springs, passes through said eyed bearing and rests upon the arch-fulcrum.

By this construction, as the springs are depressed, the rod slides through the loop, and, curving, allows the springs to move in a vertical plane.

The accompanying drawings, with the letters of reference marked thereon, and a brief description, will enable those skilled in the art to make and use the same.

Figure 1 is a perspective view of ordinary running-gears with my improvement in place. Fig. 2 is a vertical section of the same.

A A represent the axles of the wheels; S, the elliptic springs; B, the spring-bars; D, the body-rods; C, the coupling or reach, as seen in the ordinary running-gears of vehicles.

My improvement, in combination with a stay or brace bar, R, consists in the arched fulcrum F, with its eye E jointly secured by the ends of the arch by screw nuts or bolts centrally upon the coupling C, at such an elevation and inclination of the said eye E that the brace rod or bar R will pass in a straight line through the eye on the arched brace or fulcrum, from its connection with the upper part of the elliptic spring or adjoining spring-bar B at one end, and its connection with the lower portion of the elliptic spring at the other end, inclined, as shown, from the rear toward the front of the coupling and spring. This may be reversed without altering the action of the main stay or bar R in its relation to the eye and ful-

crum E F. The ends of said bar may be attached by means of the ordinary bolts.

For heavier vehicles the brace-rod may be hinged at the elevated end, if found of advantage.

By the use of this arched fulcrum and retaining-eye, I not only form an additional central stay or brace, but I form a bearing in and upon which the brace-rod R can accommodate itself, or is self-adjusting, and takes up the thrust caused by the depression of the spring by a corresponding curve upon its fulcrum-bearing. Thus all additional spring-connections to the rear of the rod, stops, and sliding or adjustable connections are avoided, and a cheaper and more simple and efficient support is given to the main stay or brace, springs, and bolts, and for relieving the strain upon them, and thus constituting a valuable protection.

I am aware that brace-rods are shown variously attached, for the purpose of spring-equalizers, as also adjustable stay-springs, as seen in the patent of A. A. Horne, No. 142,105, having a combined arched truss-rod provided with corrugations to match the corrugations in a spring-rod, as shown and claimed, which I disclaim; but in no one is there such a loose connection between the rod and its fulcrum-support as to allow a free endwise movement, and thereby a curving, of the rod, which is shown in my device.

What I claim is—

The combination of the centrally-located arch, F, having loop E, with the rod R, made fast at both ends, and having a loose bearing at the middle in the loop E, whereby it can accommodate itself to the vertical movement of the springs.

GEORGE PEIRCE.

Witnesses:

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