

Patented Feb. 9, 1875.

Fig:1.

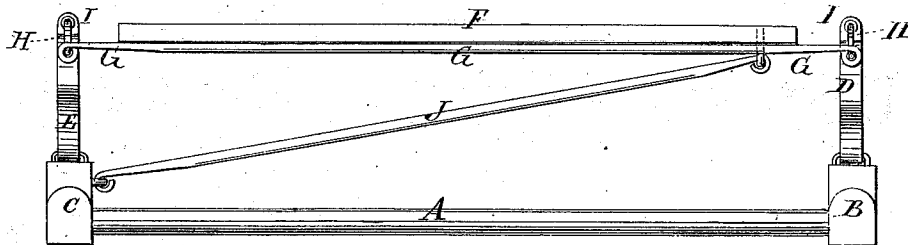
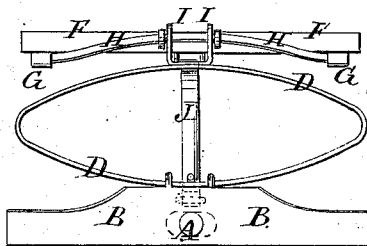


Fig: 2.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

THOMAS L. GUEST, OF POTTSTOWN, PENNSYLVANIA.

IMPROVEMENT IN SPRING-EQUALIZERS.

Specification forming part of Letters Patent No. **159,572**, dated February 9, 1875; application filed December 28, 1874.

To all whom it may concern:

Be it known that I, THOMAS L. GUEST, of Pottstown, Montgomery county, Pennsylvania, have invented a new and useful Improvement in Carriages, of which the following is a specification:

Figure 1 is a side view of a carriage-frame to which my improvement has been applied, and Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A represents the reach; B and C, the forward and rear axles; D and E, the forward and rear springs; F, the body, and G the side bars, of a carriage, about the construction of which there is nothing new. Upon the ends of the side bars G are formed eyes to receive the ends of the cross-bars H, which are slightly curved, as seen in Fig. 2, and the middle parts of which work in bearings, I, attached to the tops of the fore and rear springs D E. In case it is desired to drop the body F below the level of the tops of the springs D E the bars H may be pivoted to the lower ends of short connecting-bars, the upper ends of which are pivoted to short bars working in the bearings I, but the construction first described is preferred. J is a stay-rod, the rear end of

which is pivoted to the rear axle C, and its forward end is pivoted to the forward part of the body F or to the forward cross-bar H. By this construction the forward and backward throw of the body F, as the wheels descend and rise from a level in passing through a hollow and over an obstruction, are limited to the amount of play given to the stay-rod J, and the movement of the said body F within said limits is made easy by the play of the pivoted cross-bars H in their bearings.

I am aware that it is not new to employ a diagonal brace-spring in connection with the front and rear body-springs of a wheeled vehicle for the purpose of maintaining said springs in a vertical position, and prevent the twisting of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the cross-bars H, the bearings I, the side bars G, and the pivoted stay-rod J with the springs D E, the carriage-body, and the axle, as and for the purpose described.

THOS. L. GUEST.

Witnesses:

L. DAMPMAN,
ED. B. FREES.