F. B. ZAY & J. DENNISON.

VEHICLE SPRING.

No. 187,500. Patented Feb. 20, 1877.

Fig. 1.

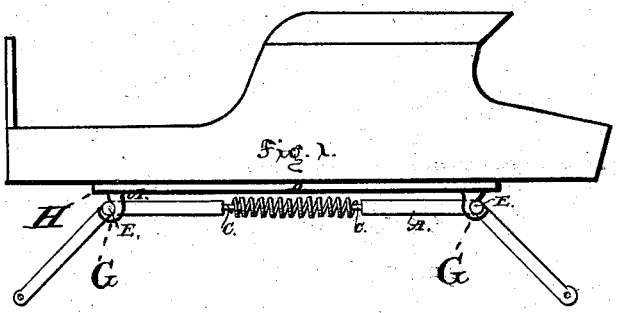


Fig. 2.

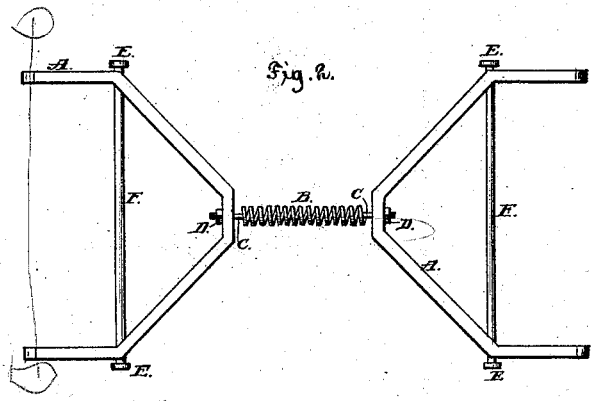
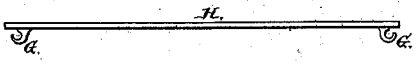


Fig. 3.



Attest:

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Frederic B. Zay

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UNITED STATES PATENT OFFICE.

FREDERIC B. ZAY AND JOHN DENNISON, OF FINDLAY, OHIO.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **187,500**, dated February 20, 1877; application filed August 21, 1876.

To all whom it may concern:

Be it known that we, FREDERIC B. ZAY and JOHN DENNISON, of Findlay, Hancock county, Ohio, have invented certain Improvements in Carriage-Springs. We hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a side view of the improved spring. Fig. 2 is a plan view of the same, and Fig. 3 is the plate that is fastened to the body.

Our invention relates to an improvement in carriage-springs; and consists of a single spiral spring and two forked levers attached to the body by means of simple bearings, and hung to the gearing by means of shackles, in an ordinary manner.

The main object of our invention is to produce sufficient elasticity by means of one spring and simple levers, thereby insuring great economy, and at the same time making this arrangement equalizing—that is to say, the body will remain straight, no matter on which side the weight is placed; and also to make the tension of the spring adjustable, and thereby adapting it to light or heavy weights. The jolting and rocking of the body cannot produce an extra strain on the spring.

In the drawing, A is a forked lever, which extends from the spring under the middle of the body to a fulcrum on each side of the body, and thence downward, and hung in shackles at the extremity. B is a spiral spring, which connects both forked levers. C is a rod, on which the spring is hooked, and which may be lengthened or shortened by means of the nuts D. E is a projection on the lever A, which fits into the fulcrum or hook G on the plate H. The plate H is fastened to the bottom of body. F is a brace steadying the levers A.

We are aware that vehicle-springs consisting of forked levers pivoted to the head-block and rear axle, and extending to the center of the body, where they are connected by a slot and pin, said forked levers also passing through slots in the lower ends of body-supports, have heretofore been employed, in connection with a spiral spring attached to one of the forked levers, and thence passing upwardly through an opening in the bottom of the vehicle-body, and swiveled to the seat; and we therefore lay no claim to such devices, which are more complicated and expensive in their construction than our invention, and which are objectionable, because openings are required in the bottom of the body and seat.

What we claim as new, and desire to protect by Letters Patent, is—

1. The forked levers A A, provided with projections E E, fulcrumed in the hooks G G attached to the bottom of the vehicle-body, in combination with the spiral spring B, directly connecting the inner ends of said forked levers, substantially as described, and for the purpose set forth.

2. In combination with the levers A, the spring B, the tension-rods C, with nuts D, the projections E, and the hooks G, and the brace F, all arranged relatively one to the other, as and for the purposes hereinbefore specified.

FREDERIC B. ZAY. [L. S.]
JOHN DENNISON. [L. S.]

Witnesses:
J. F. BURKET,
J. B. FOUNTAIN.