W. FOOTE.

VEHICLE-SPRING.

No. 190,841. Patented May 15, 1877.

Fig. 1.

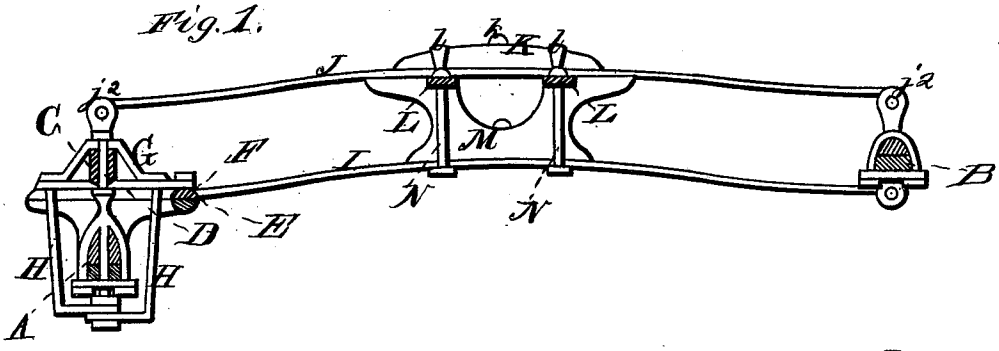
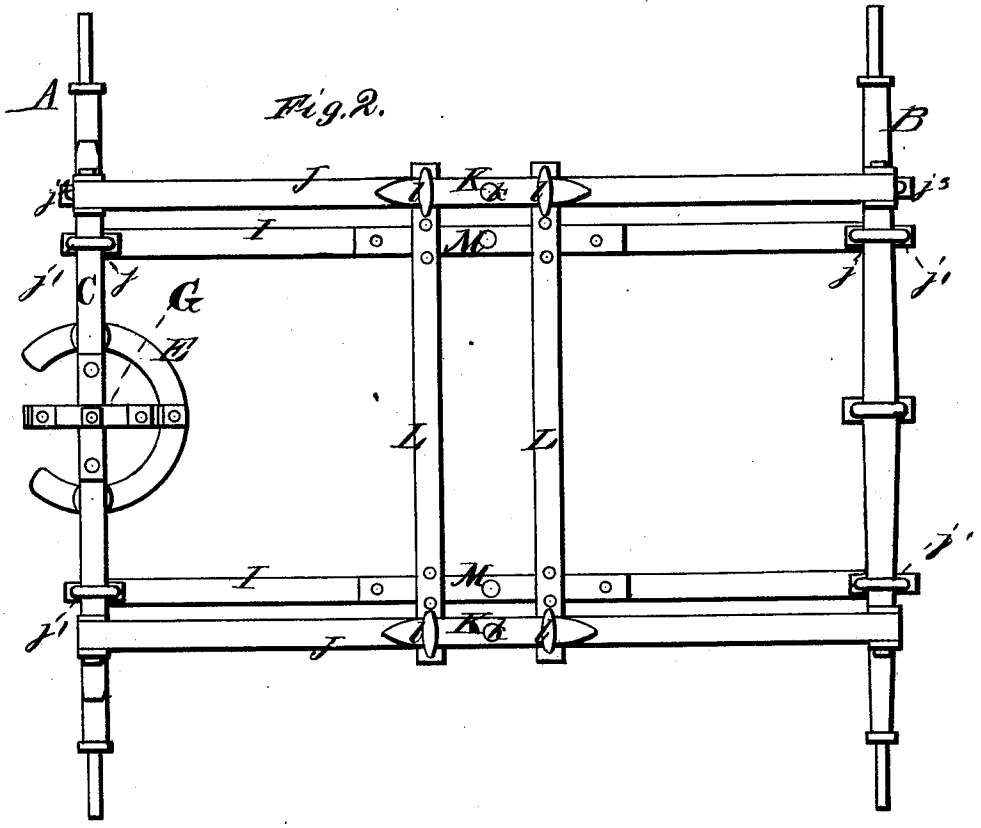


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM FOOTE, OF FILLMORE, NEW YORK.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **190,841**, dated May 15, 1877; application filed September 9, 1876.

To all whom it may concern:

Be it known that I, WILLIAM FOOTE, of Fillmore, in the county of Allegany and State of New York, have invented a new and valuable Improvement in Carriage-Springs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my carriage-spring, and Fig. 2 is a plan view of the same.

This invention relates to springs for carriages and wagons, and improvements in attaching the same; and it consists in the devices hereinafter particularly described and claimed, constructed and combined as set forth.

In the annexed drawings, A designates the front axle of a carriage or wagon, and B the rear axle of the same. C is a bolster and head-block, connected with front axle A by king-bolt D and fifth-wheel E. The lower plate of said fifth-wheel is fastened to said axle A by clips, or any equivalent devices. The upper plate of said fifth-wheel is provided with a straight horizontal, rigidly-attached bar, F. Said bar is secured by both ends to the top of said head-block C by a metal brace-strap, G, which passes over the top of said head-block, and is perforated to allow the passage of the upper end of king-bolt D. Bent brace-rods H H are also attached by their upper ends to the under side of said bar F, and pass under said axle A and king-bolt D, to which their lower ends are firmly attached. Said brace-rods and brace-strap hold the above-named parts firmly in position, and strengthen them to resist strain.

I I designate two lower longitudinal springs, pivotally hung to and below rear axle B and head-block C, in perforated lugs *j j* fastened to said axle and head-block by clips j^1 j^1. These springs are arranged under the sides of the wagon. J J are two similar upper springs, pivotally secured to the upper side of said rear axle and head-block by perforated lugs j^2 j^2 and clips j^3 j^3.

K K designate two wooden strengthening-strips, one of which is fastened to the top of the middle of each upper spring J. This fastening is effected by means of bolts *k k*, and also by means of clips *l l*, which secure to said springs the ends of two equalizing-bars, L L. M M designate two supporting-blocks, which are interposed between said equalizing cross-bars L L and lower springs I I. Large clips N N clamp together said lower springs, supporting-blocks, and equalizing-bars. The weight of the wagon-body rests primarily upon said equalizing-bars and supporting-blocks, said blocks being recessed on top to allow said bars to be sunk into them flush with their upper surfaces.

It will be seen that in my construction the springs I I and J J are not in the same vertical plane, which described arrangement of springs and connected parts prevents all injurious side motion and shocks, and distributes the weight equally.

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

Supporting-blocks M M, in combination with equalizing-bars L L, lower springs I I, and upper springs J J, pivotally attached to the rear axle and head-block, as described, the springs I I being arranged under the sides of the body and inside the springs J J, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM FOOTE.

Witnesses:
WM. POOLE,
JOHN W. EVERINGHAM.