

J. H. GOULD.
Carriage Spring.

No. 109,406.

Patented Nov. 22, 1870.

Fig. 1.

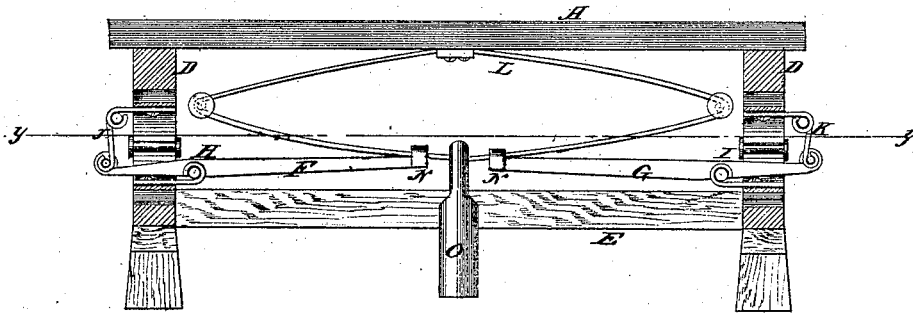
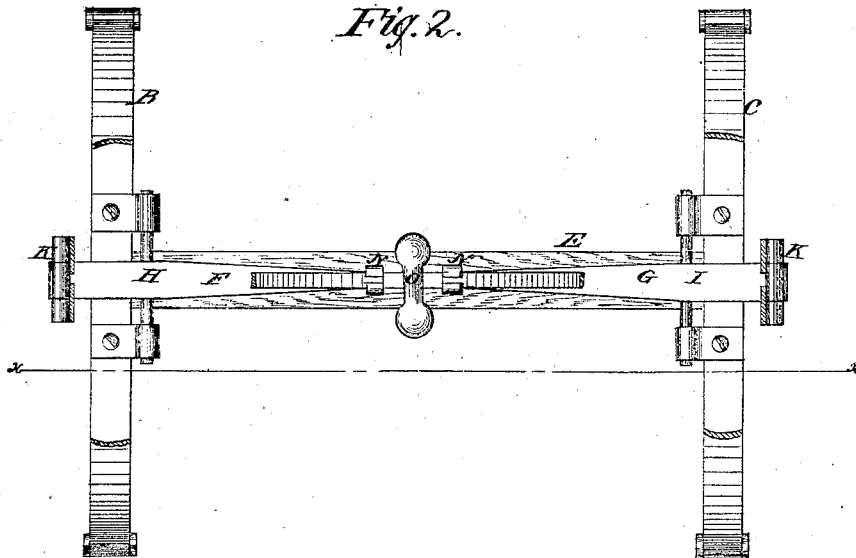


Fig. 2.



Witnesses:
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JACOB H. GOULD, OF BURLINGHAM, OHIO, ASSIGNOR TO HIMSELF AND JOHN J. CAMPBELL, OF SAME PLACE.

Letters Patent No. 109,406, dated November 22, 1870.

IMPROVEMENT IN VEHICLE-SPRINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JACOB H. GOULD, of Burlingham, in the county of Meigs and State of Ohio, have invented a new and useful Improvement in Vehicle-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to new and useful improvements in springs for carriages and all kinds of vehicles, and consists in the construction and arrangement of parts as hereinafter more fully described.

In the accompanying drawing—

Figure 1 represents a side view of the arrangement, it being a vertical longitudinal section looking from the line *x x* of fig. 2.

Figure 2 is a horizontal section of fig. 1, looking down from the line *y y*.

Similar letters of reference indicate corresponding parts.

A is the bottom of the vehicle-body.

B and C are elliptic springs, upon which each end of the bottom A rests. The springs rest upon the bolsters of the running gear in the ordinary manner.

D represents transverse cleats between the bottom A and the springs B C.

E is the reach, which connects the bolsters of the running gear together.

F and G are levers, which have their fulcrums at the points H I.

The short ends of these levers are connected with the upper leaves of the springs B C by the links J K.

L is an elliptic spring, which is attached to the center of the bottom A, at the middle of the upper leaf, from which point the spring is suspended.

This spring is placed at right angles with the springs B C. The lower leaf of this spring is connected with the long ends of the levers F G, by means of the

bands N on the ends of the levers, through which the leaf of the spring loosely passes.

O is a weight, which is suspended from the center of the lower leaf of the spring L, as seen in fig. 1.

By this arrangement it will be seen that the simultaneous and perpendicular movement of the ends of the body of the vehicle is secured.

By means of the weight applied virtually to the long ends of the levers, the weight of one or more persons or of other loading may be balanced, so that the action of the springs may be made easy to the riders and correspond with the load carried.

This arrangement of springs and levers combined so nearly resembles a weighting-scale that the weight of the load contained in the vehicle may be ascertained with considerable accuracy.

I do not confine myself to this particular arrangement, as I am aware that the action of the levers on the vehicle may be obtained from springs in combination therewith differently arranged.

Neither do I confine myself to springs of any particular form or material. My object is to produce a perpendicular and simultaneous movement of the ends of the body of the vehicle by means of the levers combined with springs, and to make the arrangement such that the load carried may be balanced by any adjusting device.

Having thus described my invention,

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

In combination with a vehicle, the levers F and G, the springs B, C, and L, and the weight O, or their equivalents, when the same are constructed and arranged to operate substantially as and for the purposes herein shown and described.

JACOB H. GOULD.

Witnesses:

J. P. STANEART,
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