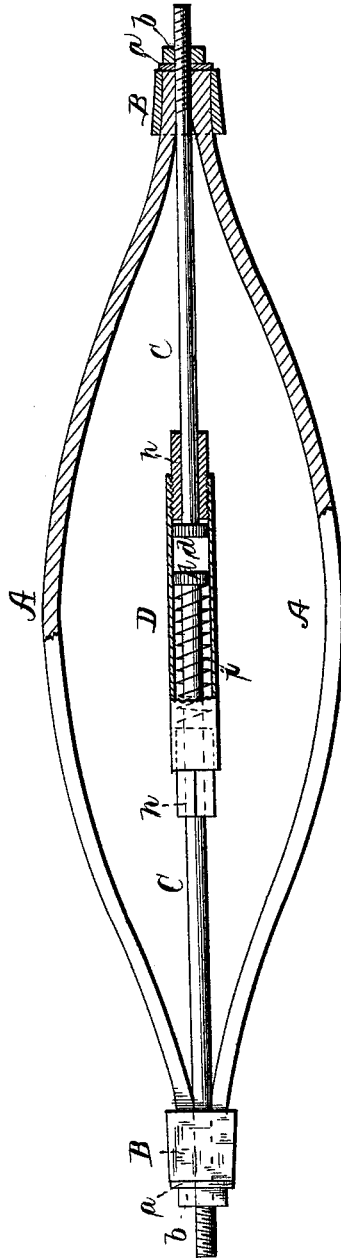


G. P. MULDOON & E. P. DAVIS.
Vehicle-Spring.

No. 202,858.

Patented April 23, 1878.



WITNESSES

Frank L. Curaud
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GEORGE P. MULDOON AND EDGAR P. DAVIS, OF OMAHA, NEBRASKA; SAID
DAVIS ASSIGNOR TO SAID MULDOON.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **202,858**, dated April 23, 1878; application filed
December 18, 1877.

To all whom it may concern:

Be it known that we, GEORGE P. MULDOON and EDGAR P. DAVIS, of Omaha, in the county of Douglas, and in the State of Nebraska, have invented certain new and useful Improvements in Vehicle-Springs; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a vehicle-spring, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a side elevation of our invention, with certain parts in section.

A A represent two wooden springs, curving in opposite directions, and having their ends connected together by ferrules B B, or other equivalent means. Through each ferrule B, between the ends of the springs A A, is passed a rod, C, passing through a washer or plate, *a*, against the outer end of the ferrule, and a nut, *b*, is screwed on the outer end of the rod. The inner ends of the rods C C are provided with heads *d d*, and inserted from opposite ends in a cylindrical casing or sleeve, D, the ends of which are closed by hollow screw-plugs *h h*, the rods C C passing through said hollow screw-plugs. Within the sleeve or casing D, one or both of the rods C is provid-

ed with a spring, *i*, either in spiral form or of rubber, said spring surrounding the rod between the head *d* on the end thereof and the screw-plug *h*.

The spring or springs *i* increase the tension or resistance of the wooden springs A A, and the more weight is placed on said springs A the more are the springs *i* contracted and the resistance increased. The tension of the spring or springs *i* is easily regulated by means of the nuts *b b* upon the outer ends of the rods C C.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the springs A A having their ends connected by ferrules B B, of the rods C C, having their inner ends surrounded by a closed casing, D, and a spring, *i*, placed around the inner end of one or both rods, within the casing, for the purposes herein set forth.

2. The sleeve D, with hollow screw-plugs *h h*, rods C C, with heads *d d*, one or more springs, *i*, and the regulating-nuts *b b*, all constructed as described, and combined with the springs A A and ferrules B B, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 7th day of December, 1877.

GEORGE P. MULDOON.
EDGAR P. DAVIS.

Witnesses:

J. W. LOVE,
WM. L. PEABODY.