

J. CARPENTER.
Wagon-Springs.

No. 146,802.

Patented Jan. 27, 1874.

Fig. 1.

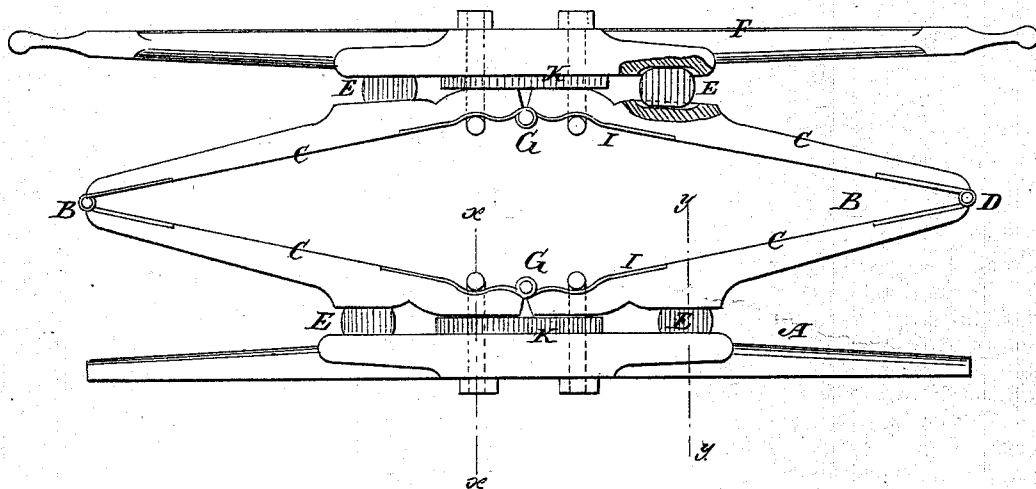


Fig. 2.

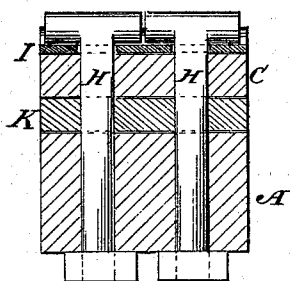
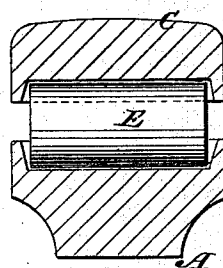


Fig. 3.



WITNESSES.

Chas. Nida.
Chequett

INVENTOR.

J. Carpenter
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN CARPENTER, OF MARINER'S HARBOR, NEW YORK.

IMPROVEMENT IN WAGON-SPRINGS.

Specification forming part of Letters Patent No. **146,802**, dated January 27, 1874; application filed November 22, 1873.

To all whom it may concern:

Be it known that I, JOHN CARPENTER, of Mariner's Harbor, in the county of Richmond and State of New York, have invented a new and useful Improvement in Carriage-Springs, of which the following is a specification:

This invention relates to the construction of springs for carriages, wagons, and similar vehicles; and consists of a spring made of wood and rubber combined, constructed and arranged as hereinafter described.

In the accompanying drawing, Figure 1 represents a side elevation. Fig. 2 is a vertical section taken on the line *xx* of Fig. 1. Fig. 3 is a vertical section of Fig. 1 taken on the line *yy*.

Similar letters of reference indicate corresponding parts.

A is the axle. B is an elliptic formed of four pieces or levers of wood, C, the pieces being connected by hinges D at the ends of the elliptic. E are rubber springs, which are confined in recesses made in the pieces C, and in the axle A and bolster F. These rubber springs may be confined by means of bolts, screws, or pins, either with or without recesses, as may be found advisable. The pieces C act as levers when the spring is in use. K are plates of rubber, which are placed between the axle

and bolster and the inner ends of the pieces or levers C. In this example of my invention I show these inner ends hinged together, G being the hinge; but this hinge is not indispensable, for the ends of the levers C are fastened by the bolts H, which pass through the levers and rubber plates, and through the axle or bolster, as seen in the drawing. I are plates of metal, placed beneath the T-heads of the bolts H.

This, it will be seen, is a double spring, and is designed for a vehicle; but it may be separated at the ends D, and single springs made, having, of course, less elasticity, and being not so well calculated for the purposes intended, but would be adapted for wagon-seats and for similar purposes.

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

A carriage-spring formed of the lever-piece C, rubber springs E, T-bolts H, and axle or bolster A F, combined as and for the purpose shown and described.

JOHN CARPENTER.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.