

I. W. MEAD.
VEHICLE-SPRING.

No. 177,951.

Patented May 30, 1876.

Fig. 1.

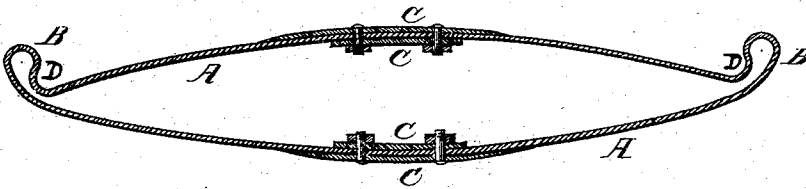
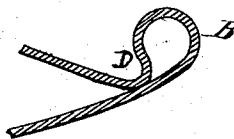


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

IRA W. MEAD, OF FALLS VILLAGE, CONNECTICUT.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **177,951**, dated May 30, 1876; application filed March 27, 1876.

To all whom it may concern:

Be it known that I, IRA W. MEAD, of Falls Village, county of Litchfield, and State of Connecticut, have invented a new and useful Improvement in Springs for Wagons and other Vehicles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a perspective view of my improved spring; Fig. 2, a sectional view, showing the relative position of the inner portion of the sharp curve to the lower portion of the spring when depressed.

The invention relates to improvements in elliptical springs; and the invention consists of a continuous or endless elliptical spring, formed from a single leaf of steel or other suitable material, turned or curved upward at the points B B, whereby the inner portion of the sharp curves D rests upon the lower portion of the spring when depressed, as will be hereinafter more fully described.

A in the drawing represents an elliptical spring, constructed of steel or other suitable material, made from a single leaf, and welded together, so as to form a continuous or endless spring. This spring is turned or curved upward at the points B B, so that the inner portion of the sharp curves D rests upon the lower portion of the spring when depressed, as shown in Fig. 2. By this construction the spring is made self-supporting, and self-balanced at the points where the sharp curve touches the larger segment of the circle, which

is intended to be the upper portion of the spring. C C are small leaves for strengthening the spring at the points where the holes are drilled for the purpose of attachment to the cross-bars of the wagon.

This spring, constructed as above described, has advantages over all other forms of elliptical springs, on account of its simple mode of construction, possessing great strength and durability, and not requiring over one-half the amount of steel generally used in the ordinary elliptical springs. The spring, being curved as shown, forms additional bearings or supports for the whole spring, whereby it steadies the same, and prevents the rolling or side motion common in the usual form of elliptical springs.

I am aware that an elliptical spring made from a single piece of steel, and having a bow at each end, is old, and such I do not claim as my invention; but

What I claim as my invention is—

A continuous or endless elliptical spring, formed from a single leaf of steel, curved upward at the points B B, the lower portion of the spring having a uniform curve, and the upper portion having the sharp curves D, whereby the inner portion of the sharp curves rests on the lower portion of the spring when depressed, in the manner substantially as and for the purpose specified.

IRA W. MEAD.

Witnesses:

W. H. MINER,
M. A. BROWN.