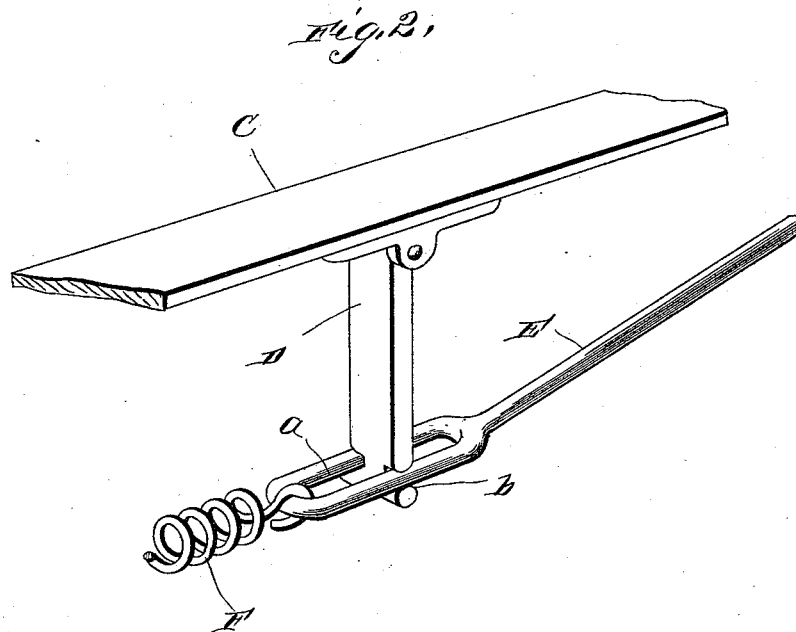
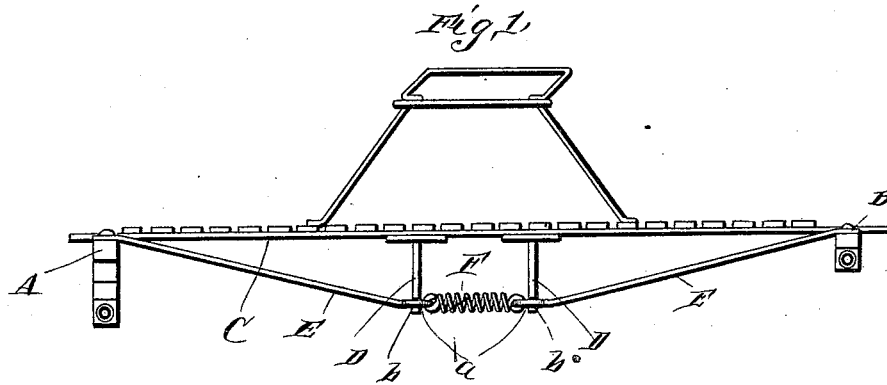


(No Model.)

G. E. WEBSTER & W. H. KIMBALL.
BUCKBOARD WAGON.

No. 421,794.

Patented Feb. 18, 1890.



Witnesses

C. L. Taylor,
Phil. Wasi.

Inventors

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By their Attorney

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UNITED STATES PATENT OFFICE.

GEORGE E. WEBSTER AND WILLIAM H. KIMBALL, OF STRATFORD, NEW HAMPSHIRE.

BUCKBOARD WAGON.

SPECIFICATION forming part of Letters Patent No. 421,794, dated February 18, 1890.

Application filed August 1, 1889. Serial No. 319,409. (No model.)

To all whom it may concern:

Be it known that we, GEORGE E. WEBSTER and WILLIAM H. KIMBALL, citizens of the United States, and residents of Stratford, in the county of Coos and State of New Hampshire, have invented certain new and useful Improvements in Buckboard Wagons; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view. Fig. 2 is a perspective view.

This invention relates to certain improvements in buckboard-springs for vehicles; and it consists of the novel combination and construction of parts, as will fully appear from the following description and accompanying illustration.

In accordance with our invention, we employ, in connection with the usual form of bolster A and hind axle B, a minimum number of flat spring-bars C, to substitute the ordinary "buckboard" connecting said bars to said bolster and axle. Upon these bars is laid a floor of suitable construction. In order to prevent undue sagging or downward bowing of the aforesaid spring-bars, and yet allow the requisite spring or elasticity, we provide pendent bars or stays D D, which are pivoted or hinged, preferably, as shown, in pairs to the under side of each outer bar C, about at the center, and truss-like rods E, also in pairs, applied to each side, the rear one of each pair connecting with or being bolted to the hind axle B and the forward one to the bolster A. The inner ends of the rods B are provided with elongated eyes or loops *a*, which are adapted to receive the

lower ends of the pendent bars or stays C when presented to the latter in a direction at right angles to their normal position, or that in which they are secured to the axle and bolster, the connection between said bars and rods consequently being effected before connecting the latter to the axle and bolster. The lower ends of the stays or bars D are therefore reduced or provided in their side edges, near the lower ends, with notches or recesses *b*, which, when the rods are in their final or normal position, receive the side edges of the eyes or loops *a*, thus effecting a connection between the same. The inner or eye ends of the rods E between the stays or bars C are connected together by means of springs F, the ends of the latter being secured to the loops or eyes of said rods, thus securing the requisite flexibility, while staying or bracing the spring-bars against undue sagging or downward bowing. This arrangement also promotes the comfort of the rider, an easy and light yielding motion being obtained thereby. It is also readily applied to the common form of buckboard-spring vehicle and at a minimum expense.

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

The buckboard-spring for vehicles, comprising the truss-like rods having inner looped or eye ends, pivoted stays or bars having notches or recesses in their side edges near the lower ends, and springs connecting the eyes or looped ends of the stays or bars together, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE E. WEBSTER.
WILLIAM H. KIMBALL.

Witnesses:

F. D. HUTCHINS,
C. A. BAILEY.