

(No Model.)

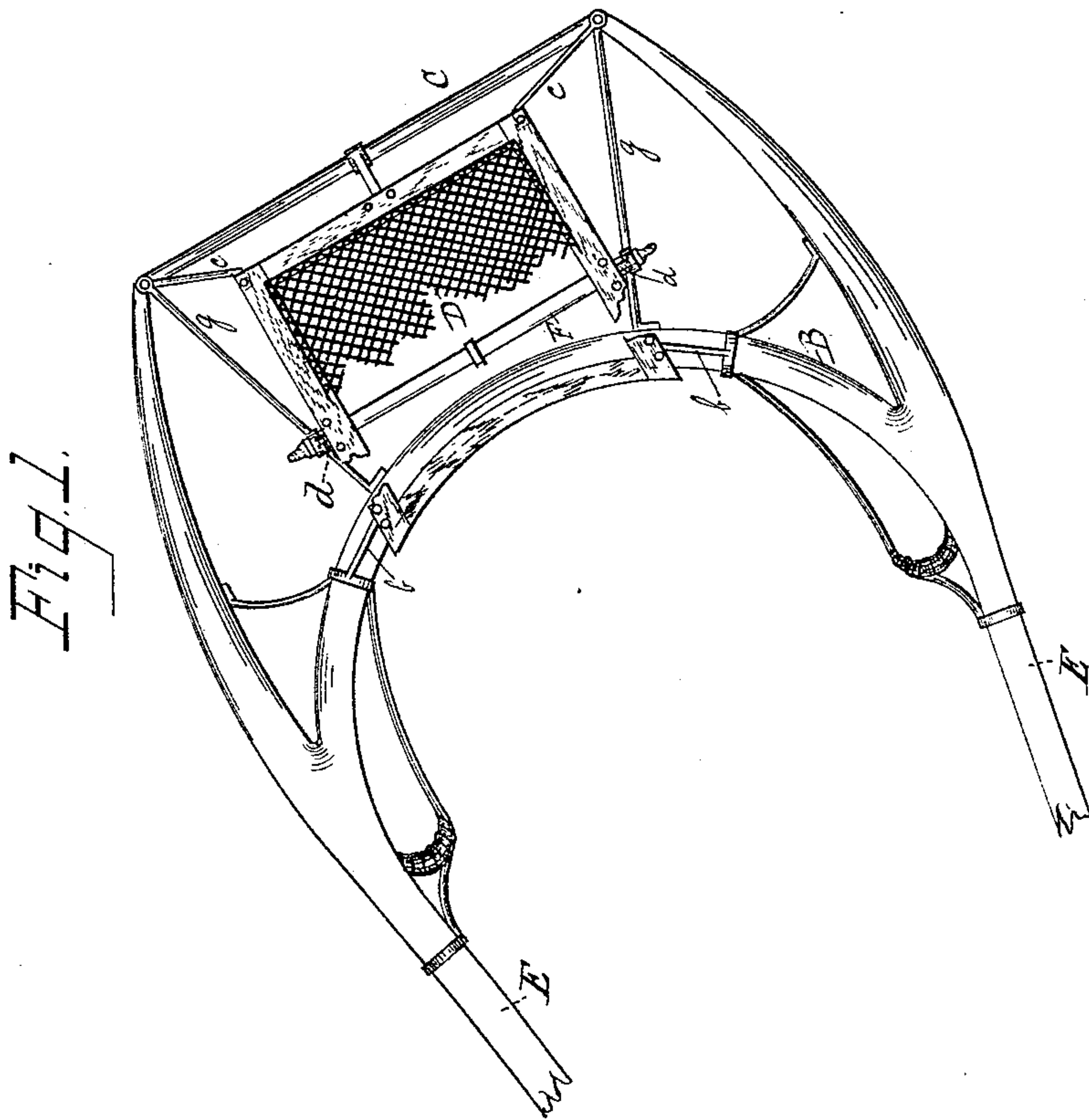
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J. W. VAUGHN.

## TROTting SULKY.

No. 389,267.

Patented Sept. 11, 1888.



WITNESSES:

Geo. H. Harvey.  
J. M. Clarke.

Inventor.

James Wilbur Vaughan.  
by his attorney William L. Pierce

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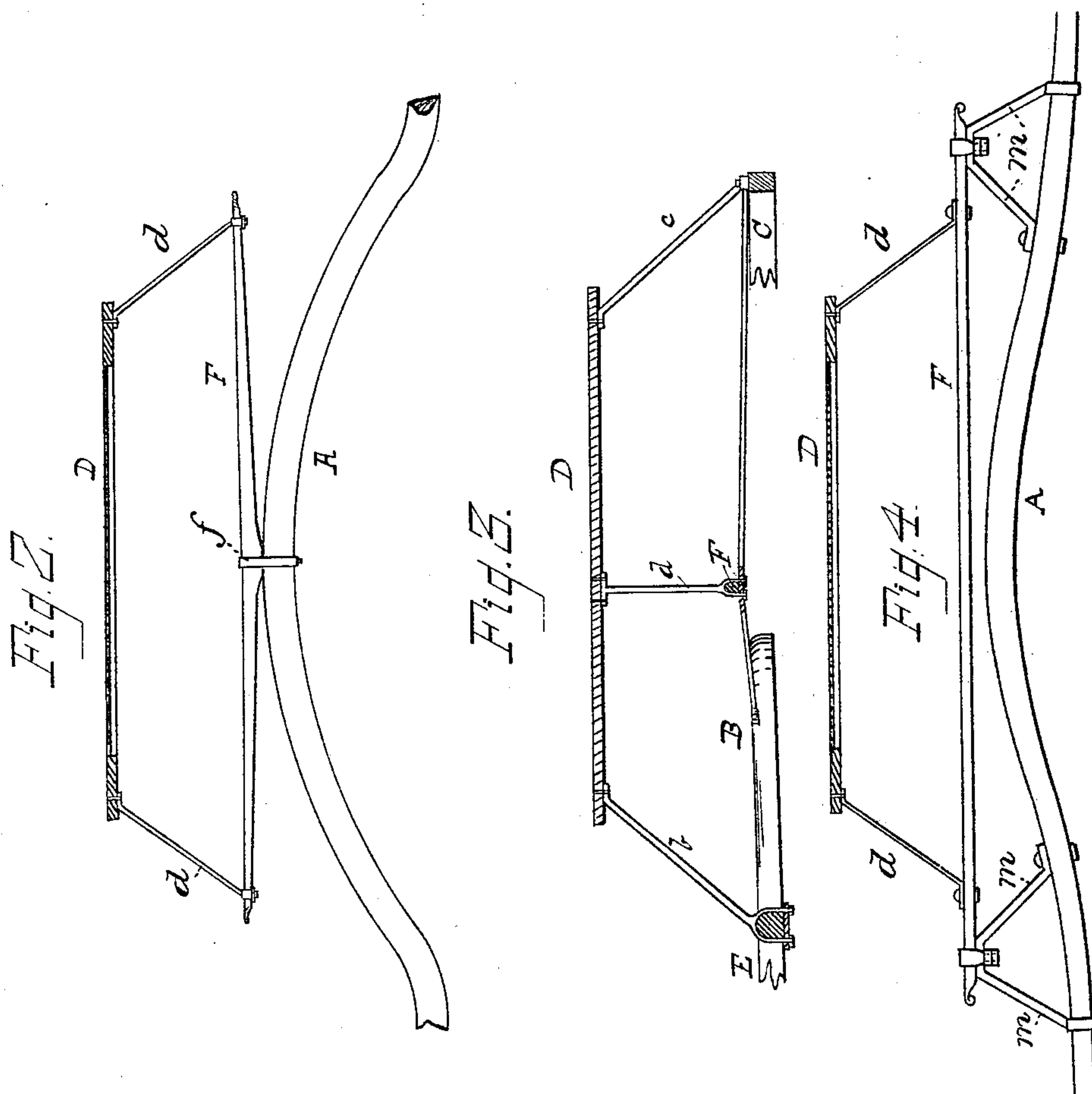
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# UNITED STATES PATENT OFFICE.

JAMES WILBUR VAUGHN, OF GREENVILLE, PENNSYLVANIA.

## TROTTING-SULKY.

SPECIFICATION forming part of Letters Patent No. 389,267, dated September 11, 1888.

Application filed April 5, 1888. Serial No. 269,766. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES WILBUR VAUGHN, a citizen of the United States, and a resident of Greenville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Trotting-Sulkies, of which the following is a full, clear, and exact description.

Trotting-sulkies are commonly constructed with a view only to strength and lightness. All superfluous weight is dispensed with. Every part not absolutely essential to the carriage of the driver is omitted. The result is that while the sulky combines strength and lightness to a very high degree the driver is subjected to all the shocks and jars occasioned by the inequalities of the road or track.

The object of this invention is to break these shocks and jars, and I accomplish this purpose by providing the sulky with a spring connected on the one hand with the axle and on the other with the seat in the manner hereinafter described.

In the accompanying drawings, which make part of this specification, Figure 1 shows a top plan view of the sulky; Fig. 2, a transverse section showing the axle, spring, and seat; Fig. 3, a longitudinal section showing the arrangement of the stays, and Fig. 4 shows a modified extended spring in transverse section.

Similar letters of reference indicate corresponding parts in all the views.

A is the axle, arched in the usual manner; B, the front cross-bar, C the rear cross-bar, and E E shafts. Secured by a clip, *f*, Fig. 2, to the top of the axle is a spring, F, which may be of either wood or metal. The seat D is connected at its two rear corners by rods *c c* with the rear cross-bar, C. Said rods *c c* are constructed of slender steel, which springs under any shock, jar, or imposed weight. The front corners of the seat are connected with the front cross-bar, B, by stays *b b*, the latter being secured to said cross-bar by clips. Stays *d d* run from the middle point of each side of the seat to the ends of the spring F. Said

stays are bolted or riveted to the seat and embrace the ends of the spring F in the manner shown.

*g g* are stays secured at the joinder of the shafts E E and rear cross-bar, C, fastened to the ends of the spring F and bolted to the front cross bar, B. Their object is to stiffen the sulky and hold its various parts more rigidly in place together. Fig. 4 shows a spring, F, extended and resting upon the axle A by braces *m m*.

The operation is as follows: The driver leaning forward his weight is almost entirely upon the front portion of the seat. The effect of the jars and vibrations is to bend the front cross-bar, B. This causes the front of the seat to sink and the spring F will be depressed. The rear stays, *c c*, merely act as a fulcrum, and their elasticity permits some play of the seat without loosening the connections between the seat and the rear cross bar, C. The extent of vertical movement of the seat is small, perhaps not more than one-half inch, but it is sufficient to relieve the driver from the racking vibrations which prove so annoying and tiresome.

Having fully described my invention, what I desire to secure by Letters Patent is—

1. The combination of the axle A, seat D, spring F, and stays *d d*, substantially as described and shown.

2. The combination of a sulky axle and seat, the latter connected with the rear cross-bar by spring-rods and with the front cross-bar by stays, and a spring secured to said axle and connected by stays with said seat, substantially as described and shown.

3. The combination of the axle A, seat D, the spring-rods *c c*, stays *b b*, spring F, stays *d d*, and stiffening-stays *g g*, all substantially as described and shown.

In testimony whereof I have hereunto set my hand.

JAMES WILBUR VAUGHN.

Attest:

WILLIAM L. PIERCE,  
THOS. J. FORD.