C. W. SALADEE.

ROAD-WAGON.

No. 193,040. Patented July 10, 1877.

Fig. 1.

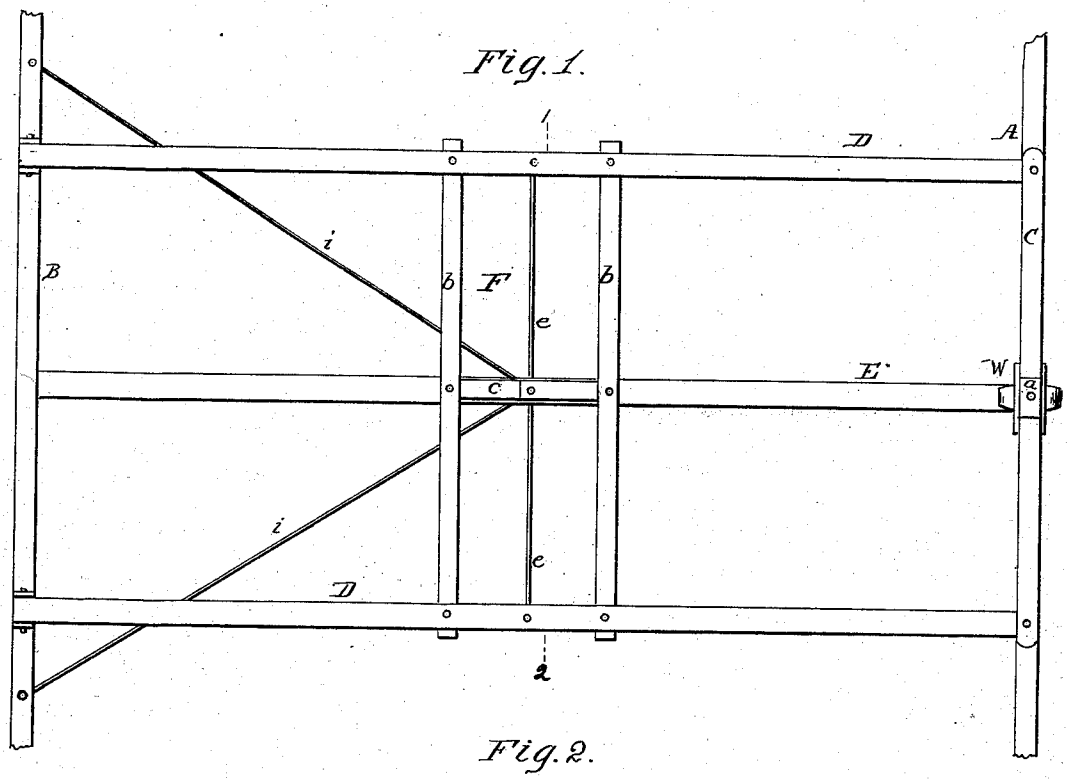


Fig. 2.

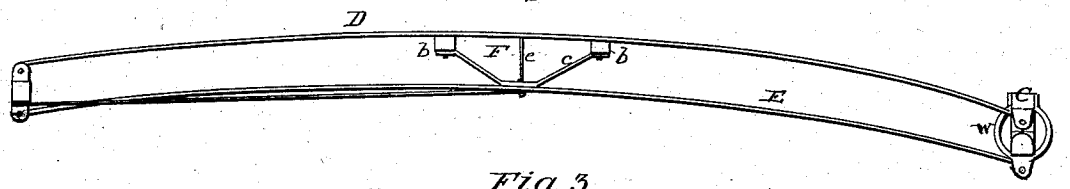
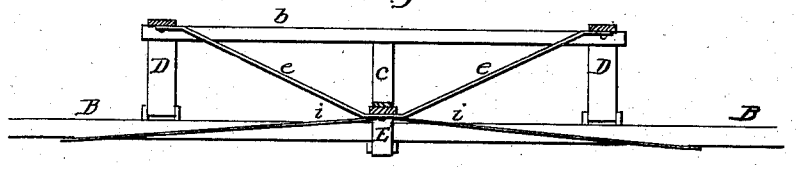


Fig. 3.



Attest:

Fred Benjamin

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By his atty

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UNITED STATES PATENT OFFICE.

CYRUS W. SALADEE, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN ROAD-WAGONS.

Specification forming part of Letters Patent No. **193,040**, dated July 10, 1877; application filed June 25, 1877.

To all whom it may concern:

Be it known that I, CYRUS W. SALADEE, of Washington, in the District of Columbia, have invented certain Improvements in Road-Wagons, of which the following is a specification, embodying my said invention.

To enable others skilled in the art to make and use my invention I herewith submit the following general description.

The object of my invention is to form a spring-support for the body of a road-wagon, of such a character that every portion of the structure will co-operate with every other portion to insure an elastic support for the body, which will yield with the desired freedom throughout the entire structure, without giving way unduly at the particular points where weights may be applied.

In the accompanying drawings, Figure 1 is a plan view of sufficient of a road-wagon to illustrate my invention. Fig. 2 is a side elevation, and Fig. 3 is a transverse section on the line 1 2, Fig. 1.

A and B are the front and rear axles, and C is the bolster, connected to the front axle by the usual king-bolt *a*. Between the rear axle and the bolster is arranged the improved spring-platform, consisting, essentially, of the upper springs D D, and the lower spring-perch E. The upper springs are suitably connected to the top of the rear axle at their rear ends, and to the ends of the bolster over the front axle, and the spring-perch has its connections below the rear and front axles. The front connection of the spring-perch is made, in the present instance, to an eye in a yoke, *w*, which incloses the front axle, receives the lower end of the king-bolt, and the flanged ends of which are bolted to the sides of the bolster, thus forming a simple, light, but strong, connection of the parts.

In the drawing ordinary semi-elliptical springs are shown; but springs of any suitable form or structure, relatively arranged and connected as hereinafter described, may be employed.

As is well known, a great defect in ordinary road-wagons is the liability of the spring-platform to yield unduly at the point where the load is placed, this resulting from the isolated character of the different springs, which can only act together when the load is central, and all of which yield readily to lateral thrusts. I overcome this difficulty by so uniting and bracing the springs composing the platform that each will co-operate with all the others to support the load wherever placed.

This mode of union is illustrated in the drawing, where all the springs are centrally united by brace F, consisting, in the present instance, of cross-bar *b b*, connecting the upper springs D D, the bracket *c* connecting the bars *b* and the spring-perch E, and the stays *e*, extending laterally and upward from the spring-perch to the upper springs. As shown in Fig. 3, the bracket *c*, rods *d*, and stays *e*, constitute a girder, rigid and unyielding, connecting all the springs at the center of the platform so rigidly together that no one part of the platform can yield independently of the others, thus insuring the co-operation of all when pressure is brought upon any one portion. As thus constructed the body will be better supported and less liable to swing and tilt than in ordinary construction.

When the springs are of sufficient size and weight they will be sufficiently rigid to resist lateral strains; but as springs of such large dimensions are necessarily heavy and expensive, I avoid their use by employing stays *i*, connected preferably to the rear axle at widely-separated points, and centrally united to the lower portion of the girder F, thus, without interfering with the vertical elasticity of the spring-platform, absolutely preventing any lateral motion, so that the weight placed at one side of the body can have little or no effect in depressing that side alone, but will be generally distributed and act to depress the whole platform vertically.

It will be apparent that the girder F may be differently constructed, provided it forms a rigid connection vertically and laterally between the parts of the spring-platform, and that the girder may be braced from the bolster instead of from the rear axle. Without therefore limiting myself to the construction shown,

I claim—

1. The combination of the upper side springs, the lower central spring, and a central girder, F, constructed to afford a lateral brace between the lower and upper springs, and a

horizontal brace between the side springs, substantially as set forth.

2. The combination of the side springs, central spring, and girder, consisting of a bracket, *c*, braces *e*, and bar or bars *b*, substantially as specified.

3. The combination of the central and side springs, the central girder, and the lateral stays *i*, substantially as set forth.

4. The combination of the bolster and yoke W, inclosing the front axle, and bolted at both ends to the sides of the bolster, as set forth.

5. The yoke W, receiving the front axle, bolted to the bolster, and having a connection for the lower spring, substantially as set forth.

In testimony that I claim the above as my invention I hereunto set my hand on this the 13th day of February, 1877.

CYRUS W. SALADEE.

Witnesses:
E. F. WESTON,
J. F. CALHOUN.