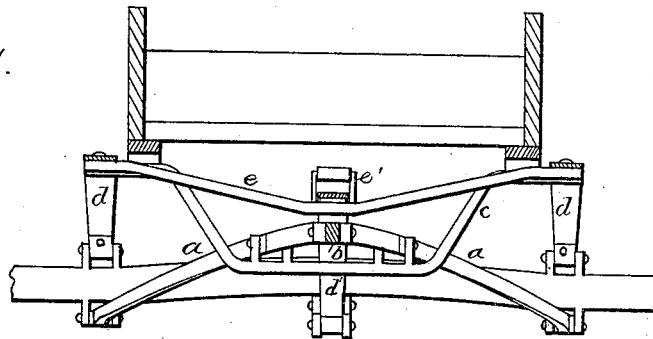


C. W. SALADEE.  
Road-Wagon.

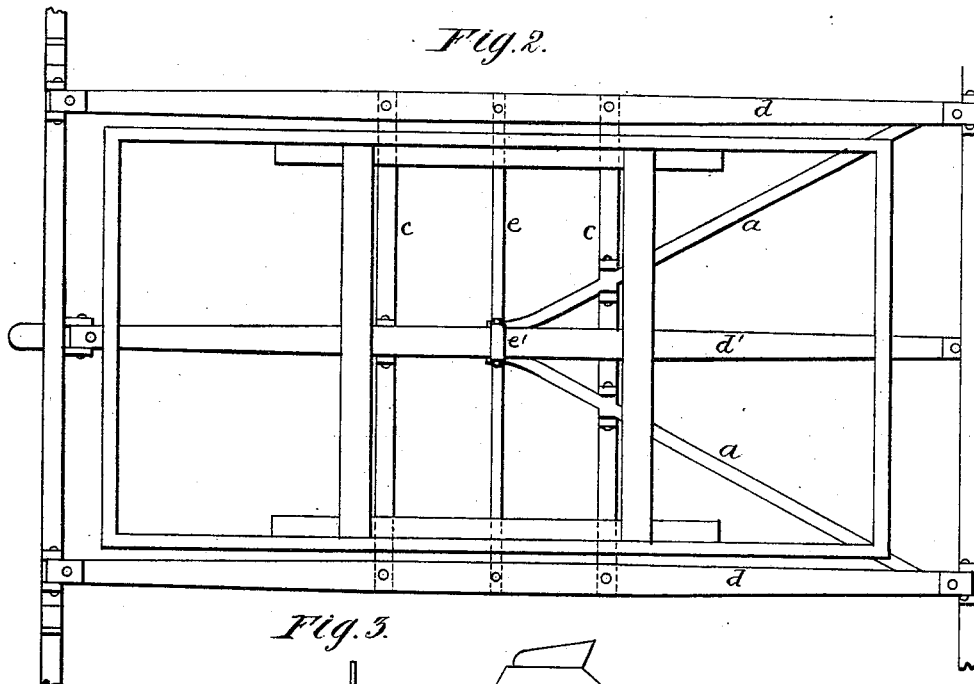
No. 217,708.

Patented July 22, 1879

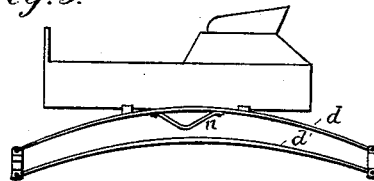
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Attest:  
Courtney A. Cooper.  
William Paxton.

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Cyrus W. Saladee  
By his attorney  
Charles E. Foster

# UNITED STATES PATENT OFFICE.

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

## IMPROVEMENT IN ROAD-WAGONS.

Specification forming part of Letters Patent No. **217,708**, dated July 22, 1879; application filed February 28, 1879.

*To all whom it may concern:*

Be it known that I, CYRUS W. SALADEE, of Washington city, 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.

My invention is a road-wagon provided with a spring-platform of any of the usual constructions, but so arranged that the number of springs affording a support for the body will depend upon the extent to which the latter is depressed.

In the drawings forming part of this specification, Figure 1 is a transverse section of sufficient of a road-wagon to show my improvement; Fig. 2, a plan, and Fig. 3 a view showing a modification.

I have illustrated my invention as applied to a triple-spring wagon, the axles being connected by equalizing frames or levers *a b*, pivoted together and hung to brackets *c c*, and the rear axle and bolster being connected by three semi-elliptic springs, *d d d'*. The side springs, *d d*, are secured to the projecting ends of the brackets *c c*, and constitute the permanent supporting-platform. A cross-bar, *e*, connected to the body, extends below the spring *d'*, and a loop, *e'*, at the upper side of the cross-bar, extends over the said central spring, but is not in contact therewith when the body is not depressed, the transverse portion of the loop being covered with leather, rubber, or other anti-rattling substance.

The side springs, *d d*, are sufficiently strong and stiff to afford an elastic easy support for the body when not heavily weighted; but when the load is increased the loop *e'* is brought

upon the spring *d'*, which thus re-enforces the others, and thereby affords the additional spring-support required by the increased weight.

It will be seen that this result is obtained without the use of additional springs or parts other than those commonly used, and that while the wagon can properly support the heaviest loads, its elasticity and easy riding under light loads are not impaired. A like result may be obtained with the parallel side springs, Fig. 3, when the upper springs, *d*, afford the usual support, and bearings *n* are brought against the lower springs when the weight is increased.

It will be seen that when the body is depressed the springs and equalizing frames or levers *a b* vibrate in unison.

I claim—

1. The combination, with the semi-elliptic springs connecting the front and rear axles and bolster of a vehicle, of a projecting bearing-piece carried with the body, and arranged to strike the lower connecting spring or springs only when the upper part of the spring-platform has been depressed, substantially as set forth.

2. In a triple-spring road-wagon, the combination of the supporting-springs *d d d'* and equalizing-levers *a b*, all arranged to operate in unison, substantially as and for the purpose set forth.

In testimony that I claim the above as my invention I hereunto set my hand this November 23d, 1878.

CYRUS W. SALADEE.

Witnesses:

JOHN W. BROOKS,  
C. L. McNEIL.