

C. W. SALADEE.  
SIDE-SPAR ROAD-WAGON.

No. 185,871.

Patented Jan. 2, 1877.

Fig. 1.

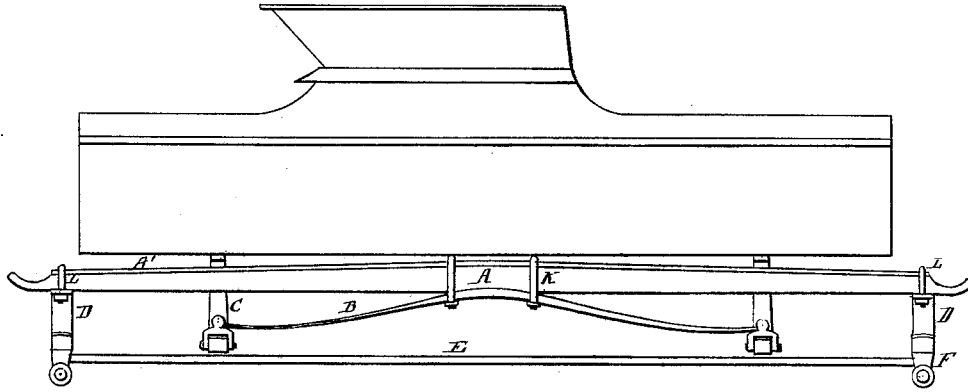


Fig. 4.

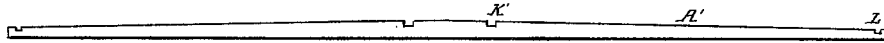
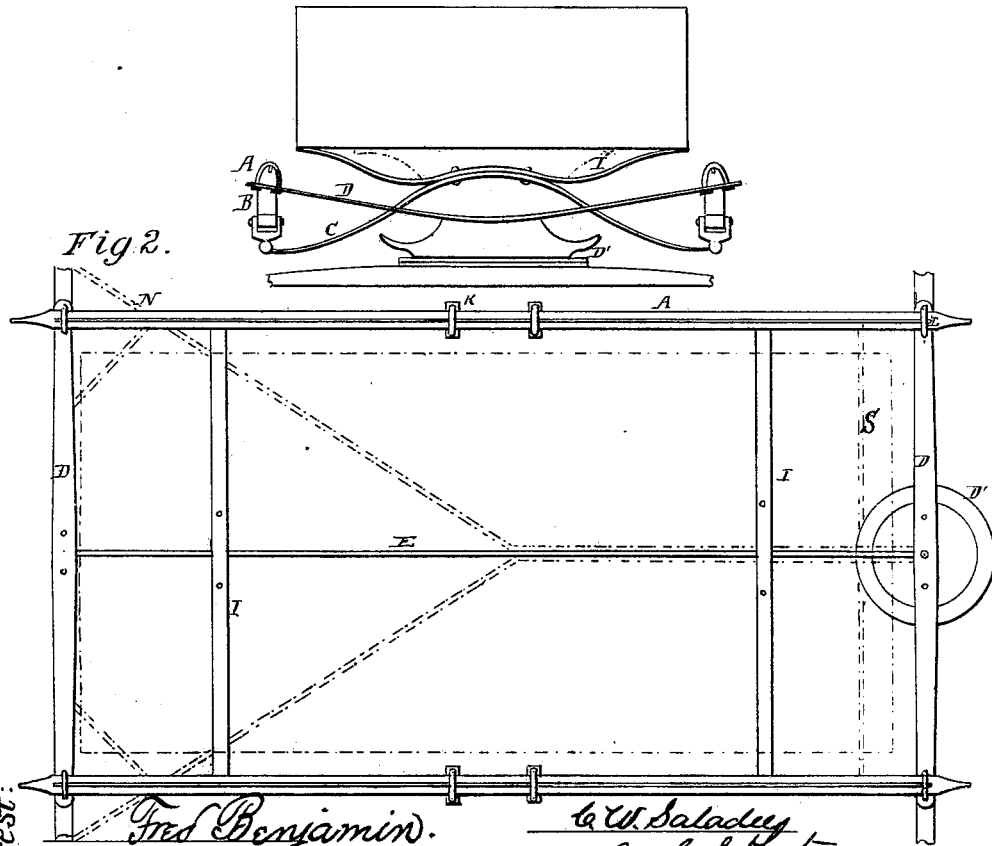


Fig. 3.



Attest:

*Fred Benjamin.*  
*George Throul.*

*C. W. Saladee*  
*By C. C. Foster* two attornys.

# UNITED STATES PATENT OFFICE.

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

## IMPROVEMENT IN SIDE-SPAR ROAD-WAGONS.

Specification forming part of Letters Patent No. **185,871**, dated January 2, 1877; application filed December 4, 1876.

### *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 Side-Spar 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 a road-wagon constructed to secure ease of riding, together with lightness, compactness, simplicity of construction, and great strength and durability.

In the accompanying drawings, Figure 1 is a side elevation of a wagon on the plan of my invention. Fig. 2 is a plan view of the running-gear. Fig. 3 is a front elevation, and Fig. 4 is a detached view.

The main feature of my invention consists in suspending the body of a four-wheeled vehicle upon a single set of platform-springs, the latter being suspended from and below the side spars of the wagon, and operating centrally between the front and rear axles, and in such manner as to admit of carrying the body at any desired point between and below the side spars.

The term "platform-springs" or "spring-platform" is generally understood among practical carriage-builders to apply to a rectangular frame consisting of four springs, or of two parallel springs and two parallel bars connected at their outer ends, one set being secured to the rear axle and body, the other to the front axle and to the enlarged fifth-wheel, which is secured to the bottom of the body in front. A single spring-platform, having the cross springs or bars *C* connected to the side springs *B* suspended from and below the side spars *A*, possesses a peculiar advantage in and adaptability to this special class of wagons, for, by this combination, including the springs suspended from the side spars, the greatest possible degree of spring motion is had within a more limited space than can be secured in any of the other known methods of obtaining the same, and, discarding, as I do, the usual transverse braces or "cross-springs" connecting the side spars of the wagon across their center portion, I am per-

mitted to carry the body between the side spars as low down as may be desired. I can, therefore, retain the present compact form of gearing peculiar to this class of vehicles, and, by this combination, secure the spring motion requisite to a pleasant and easy riding wagon.

A modification of my invention consists in the employment of the usual side spars *A*, end springs *D*, axes *F*, and perch *E*, in combination with the spring-platform consisting of the two side springs *B*, and the two cross-springs or bars *C*. The side springs are suspended in any suitable manner from and below the side spars, as by clips *K* and bars or hangers *I*, of metal or wood, at the under side of the wagon, bear upon the cross-pieces *U* at the centers thereof, and are bolted thereto, so that the body is supported by the cross-pieces resting centrally thereon. It will now be observed that in this arrangement and combination of parts I have secured the combined action of eight separate springs, viz., the two side springs *B*, two cross-springs *C*, two end springs *D*, and the vibration of the two side spars *A*, the whole acting in unison, each spring with the others.

Another and cheaper modification of my invention consists, first, in omitting the perch *E*; second, in substituting for the end springs a rigid bar of wood or metal, and to the outer ends of this securing the ends of the side spars *A*. The stays *N*, from the rear axle, terminate at and are secured to the under side of the side spars *A* at or about the point where now they pass under same in Fig. 2. The fifth-wheel *D'* is braced and supported, in relation to the side spars *A*, by wrought stays extending from the under side of the fifth-wheel up to the opposite side spar, as indicated by the dotted lines *S*, Fig. 2.

I have thus produced a light, strong, and easy-riding "platform spring-wagon," without perch and upon a single platform suspended from and below the side spars, and operating between the front and rear axles.

To strengthen the side spars and secure better attachments thereto, I employ a light and thin strip of sheet-steel, *A'*, extending lengthwise of the bar and embedded edgewise therein. When inserted in the top of the upper edge is left projecting above the top of the bar, as

clearly shown in Fig. 1. This projection admits of cutting out of the top edge of the steel plate a notch or "seat," in which the tops of the clips L and K are made to rest, and the latter are thereby prevented from slipping from their positions. Fig. 4 is a detached view of the plate A, when made with the clip-seats L' and K'. The entire weight of the body and its load being suspended from the central portion of the side spars, the latter would not be of sufficient strength and stiffness, unsupported by some additional means, without enlarging them to a degree out of proportion to the other parts of the running-gear. By the insertion of this thin steel plate I get the requisite strength and stiffness without in any material degree increasing the size or weight of the bar itself, and yet the bar retains a certain and desirable degree of flexibility under its load.

I claim—

1. The combination, in a side-spar road-wagon, of the body and a spring platform

consisting of a pair of side springs and a pair of cross springs or bars, the latter being connected to the outer ends of the former, and the whole suspended from and below the side spars of the wagon, and operating centrally between the front and rear axles, substantially as and for the purpose set forth.

2. The combination of the body side spars A A, from and below which are suspended the springs B C, with springs D resting on the axles and supporting the bars, substantially as set forth.

3. The side spar A, combined with and strengthened by the inserted metallic strip, substantially as set forth.

5. The combination of the side spar A and inserted strip A', notched, as and for the purpose specified.

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Witnesses:

STELLA J. CHAMBERS,  
C. W. DUBLE.

1.250  
words