

(No Model.)

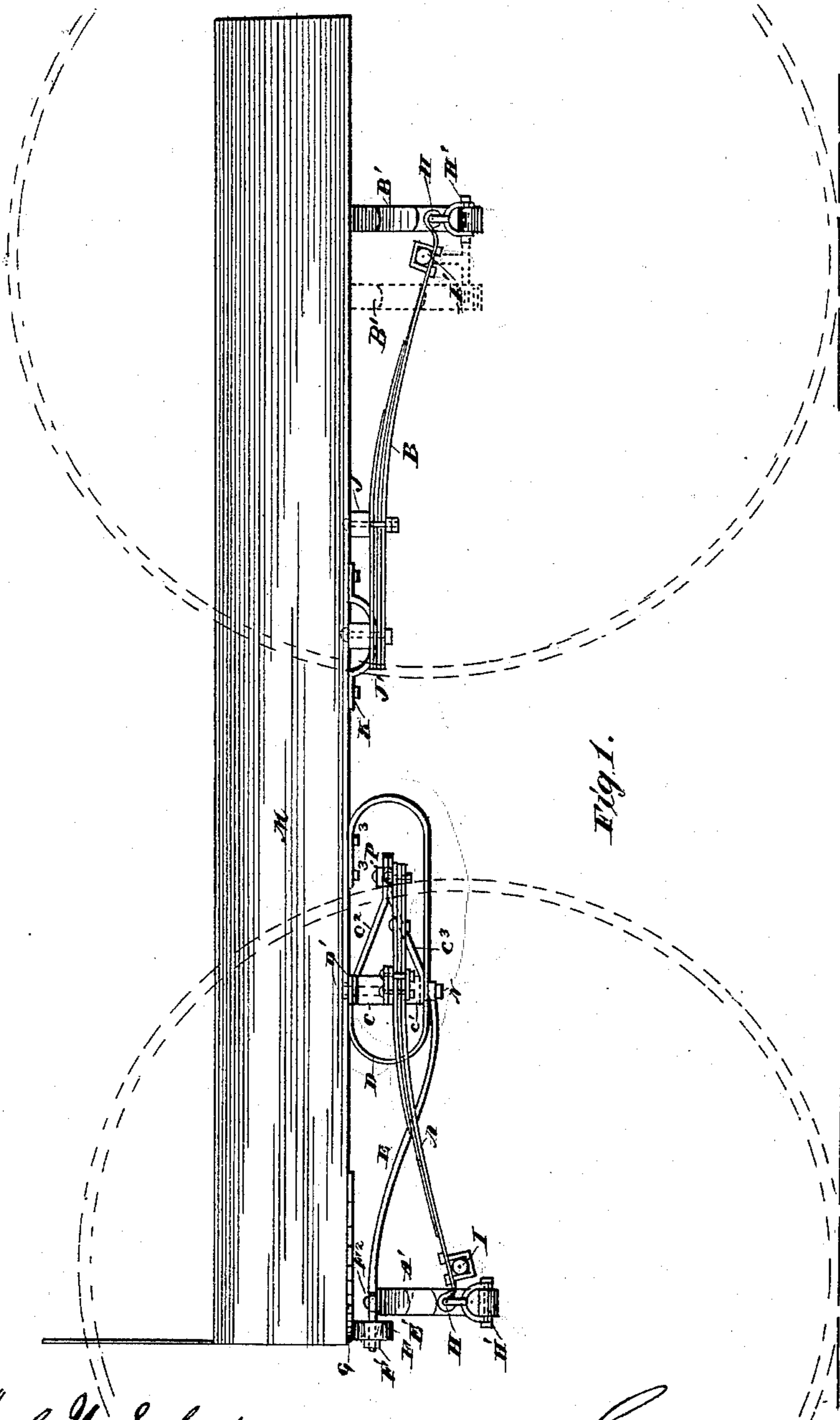
2 Sheets—Sheet 1.

C. W. SALADEE.

# PLATFORM SPRING FOR ROAD WAGONS.

No. 448,790.

Patented Mar. 24, 1891.



Charles W. Saladee  
Leonard Staschoff  
Witnesses

Ernest M. Salasue  
Inventor

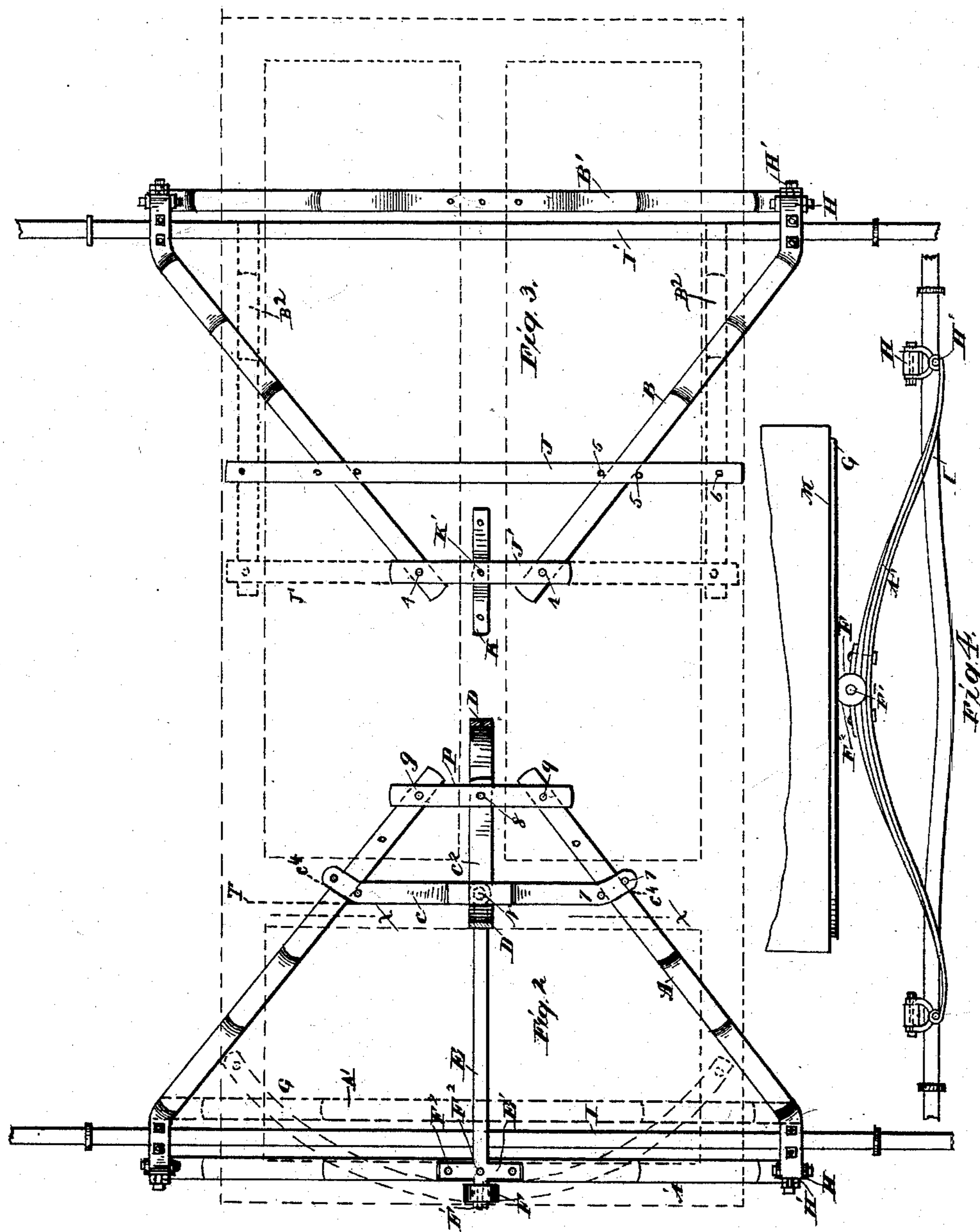
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# UNITED STATES PATENT OFFICE.

CYRUS W. SALADEE, OF CLEVELAND, OHIO.

## PLATFORM-SPRING FOR ROAD-WAGONS.

SPECIFICATION forming part of Letters Patent No. 448,790, dated March 24, 1891.

Application filed October 13, 1890. Serial No. 368,054. (No model.)

*To all whom it may concern:*

Be it known that I, CYRUS W. SALADEE, of the city of Cleveland, State of Ohio, have invented certain new and useful Improvements in Spring-Platforms for Road-Wagons, whereof the following is a specification embodying my invention.

The invention consists of the improved devices and combinations of the several parts constituting the complete structure, as hereinafter more fully set forth, and as pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of a complete road-wagon constructed upon the general plan of my invention. Fig. 2 is a plan view of the front spring-platform. Fig. 3 is a plan view of the rear spring-platform; and Fig. 4 is a front elevation of the lower edge of the body, axle, and transverse spring.

These spring-platforms are separately constructed, and either may be employed to support one end of the body, while some other well-known means may be applied to support the opposite end.

My invention has for its object the oblique arrangement of side springs in contradistinction to those that are placed in positions parallel to each other, and said oblique springs being re-enforced by a transverse spring or springs having their opposite ends suspended from or sustained by the axle at or near its opposite shoulders upon suitable shackle or pivotal connections therewith, either by a direct connection with the body of the axle or pivotally engaging the terminal ends of the oblique side springs. Said transverse spring-support may be carried immediately above and over the axle or on either or both sides of the latter, or an elliptic spring transversely arranged and supported upon the center of the axle in the usual way may be substituted without departing from the spirit and purpose of this part of my invention, since a single or duplex spring may be employed according to the weight the vehicle is designed to carry.

It is the further object of my invention to construct the front spring-platform in such manner as shall facilitate the short turning of the vehicle, which is accomplished by placing the king-bolt coupling at the requisite

point to the rear of the axle and suspending it from the bottom of the body.

A suitable frame-work adapted to connect the elevated center portion of the transverse spring and the terminal rear ends of the side springs A A is pivotally supported by the king-bolt coupling N, connected to the bottom frame of the body and forwardly sustained by said transverse spring. Said frame and king-bolt coupling or fifth-wheel device may be of any appropriate or well-known construction adapted to the purpose. The elevated center portion of said transverse spring is provided with a friction or roller bearing adapted to sustain the front end of the body, the bottom frame of which carries a segment-plate G (seen in dotted lines, Fig. 2) of such requisite curvature as will admit of its riding upon said roller or a corresponding segment-bearing connected to the spring-frame when turning the vehicle. The side springs A A are obliquely extended from the spring-frame or fifth-wheel device to the axle and connected therewith, substantially as seen in Fig. 2. This oblique position of the side springs in relation to the axle and the king-bolt coupling not only affords a more direct brace, extending from the latter to the axle, than springs arranged parallel to each other in the usual way, but it admits of carrying the steps suspended from the sides of the body in place of being attached to the spring-frame. If but a single transverse spring A' is employed its terminal ends are preferably suspended upon a pivoted or shackle bearing engaging the front ends of the side springs A A; but if duplex springs are applied, as indicated in dotted lines, Figs. 1, 2, and 3, they are preferably suspended upon pivotal bearings connected to the axle independent of any direct connection with the side springs. The rear ends of the oblique side springs A A may be connected to the spring-frame or fifth-wheel device engaging the king-bolt N in any well-known manner that will afford a proper support and secure their requisite action. The center bar E, extending from the transverse spring rearwardly and engaging the king-bolt, constitutes a part of the spring-frame carried by said king-bolt. In this instance, and as seen in Figs. 1 and 2, the front end of said central

bar E is adapted to carry the roller F, on which rides the segment-plate G.

In the rear spring-platform (seen in Fig. 3) the arrangement and combination of the side and transverse springs A A and A' with the axle are the same as described in the front platform, Fig. 2. In this instance, preferably, two cross supports or bars J and J' are interposed between the inner ends of the side springs and the body. The cross-bar J' is preferably secured to the bottom center sill of the body by the bracket K. (See Fig. 1.) These interposed cross-bars serve the double purpose of a support for the inner ends of the side springs and as a means to regulate the hang of the body according to the thickness given them. If, however, it is preferred to pivotally connect the front ends of the oblique side springs B to the cross-bar J', the bar J is omitted, or the inner ends of said side springs may connect, pivotally or otherwise, directly to the bottom frame of the body. Yet I prefer the arrangement of parts seen in Fig. 3 for all general purposes. The elevated center portion of the transverse spring-support, Fig. 3, is connected to the rear end of the body by any well-known means adapted to the purpose.

Without limiting my claims to the precise arrangement of the several parts shown and described, I claim—

1. In combination with a front spring-platform for road-wagons, side springs forwardly attached to the axle at widely-separated points and obliquely extended therefrom to and connected with a spring-frame, which is rearwardly supported by a king-bolt coupling connecting said frame to the bottom of the body and forwardly sustained upon a transverse spring carried by said axle, substantially as set forth.

2. The combination, in a spring-platform for road-wagons, of side springs obliquely extended from the bottom of the body to the axle, and a transverse spring arranged parallel to said axle having its terminal ends suspended therefrom upon shackle-bearings pivotally engaging the outer ends of said side springs, substantially as set forth.

3. The combination, in a front spring-platform for road-wagons, of side springs obliquely extended to the axle from a spring-frame se-

cured to the bottom of the body by a fifth-wheel device, and a transverse spring-support arranged parallel to said axle and having its terminal ends suspended therefrom upon shackle-bearings pivotally engaging the outer ends of said oblique springs, substantially as set forth.

4. The combination, in a front spring-platform for road-wagons, of side springs obliquely extended from a fifth-wheel device secured at the bottom of the body to the axle, a transverse spring carried by said axle, and a friction or roller bearing interposed between the elevated center portion of said transverse spring and the bottom of the body, substantially as and for the purpose set forth.

5. In combination with a front spring-platform of the character described, the longitudinal central bar E rearwardly extended from the elevated center portion of the transverse spring A' and engaging the king-bolt N, substantially as set forth.

6. In combination with a front spring-platform of the character described, the segment-plate G, secured to the bottom of the body, and the same being adapted to ride upon a friction or roller bearing F, secured to the elevated center portion of the transverse spring-support A', substantially as set forth.

7. In combination with a front spring-platform of the character described, the longitudinal central bar having its front end constructed to such requisite form as will admit of its rigid attachment to the elevated center portion of the transverse spring A', and to pivotally sustain the roller F, substantially as shown and described.

8. In a rear spring-platform for road-wagons, side springs having their inner ends secured to the bottom of the body and obliquely extended therefrom to the axle, in combination with a transverse spring arranged parallel to said axle, its terminal ends suspended therefrom upon shackle-bearings pivotally engaging the outer ends of said side springs, and having its elevated center portion suitably connected to the rear end of said body, substantially as set forth.

CYRUS W. SALADEE.

Witnesses:

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