

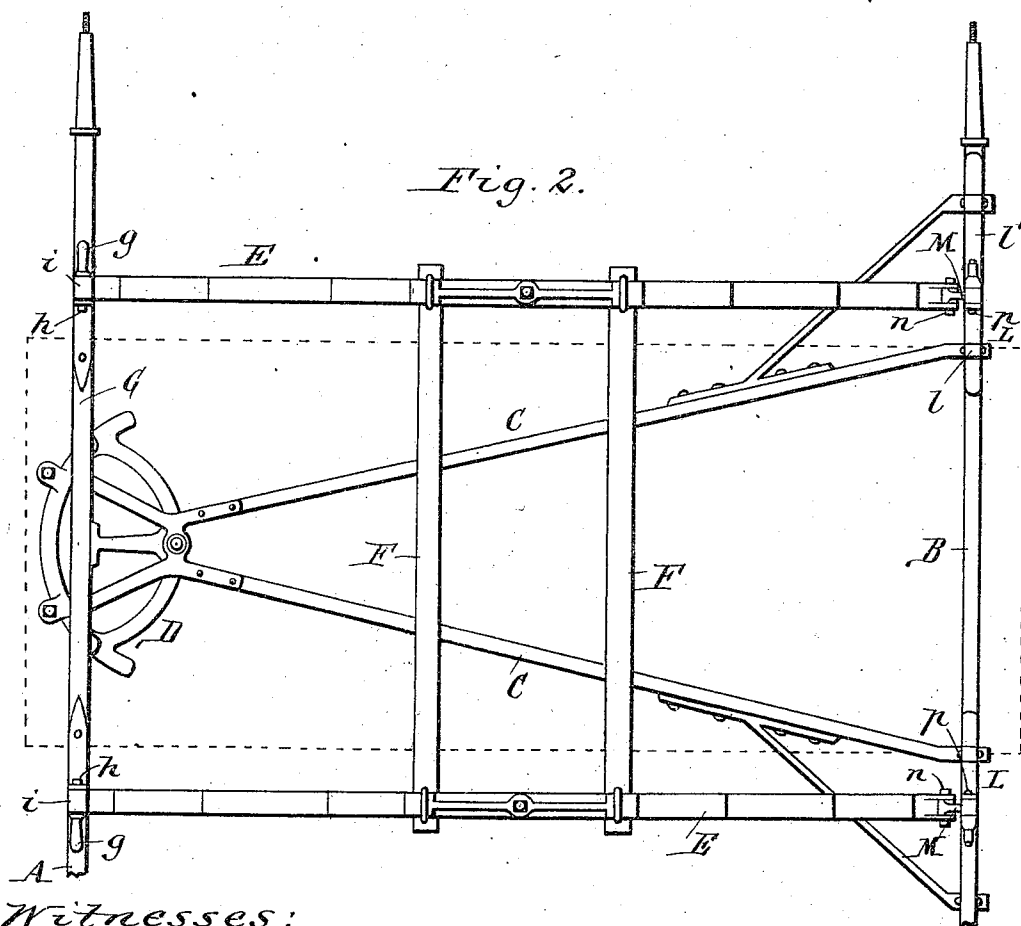
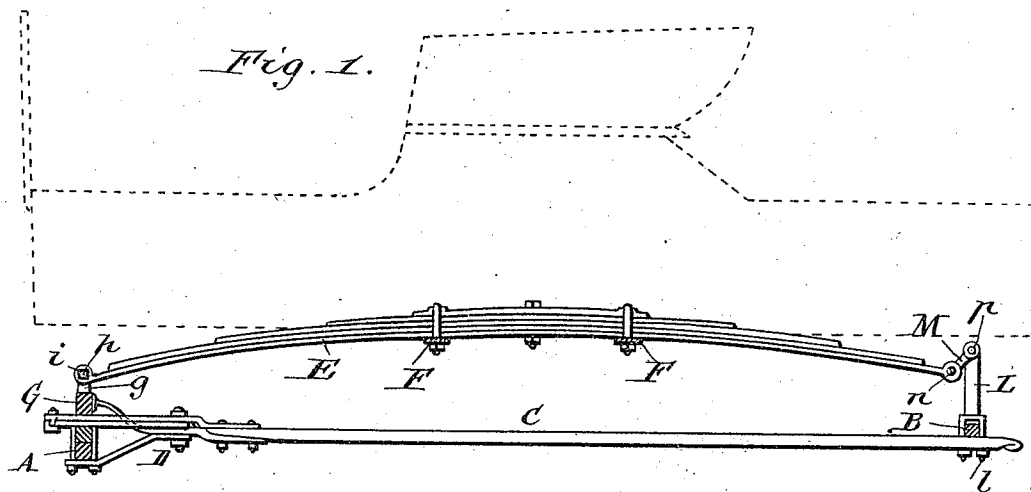
(No Model.)

C. C. BRADLEY.
SPRING VEHICLE.

2 Sheets—Sheet 1.

No. 502,027.

Patented July 25, 1893.



Witnesses:

Chas. F. Burkhardt.

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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRADLEY, OF SYRACUSE, NEW YORK.

SPRING-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 502,027, dated July 25, 1893.

Application filed March 31, 1893. Serial No. 468,521. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BRADLEY, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Spring-Vehicles, of which the following is a specification.

This invention relates to that class of vehicles in which the body is supported on side springs and has the object to hang the body comparatively low and to improve the vehicle in other respects.

In the accompanying drawings consisting of two sheets: Figure 1 is a side elevation of a running gear provided with my improvements, the body being indicated by dotted lines. Fig. 2 is a top plan view thereof with the body indicated by dotted lines. Fig. 3 is a rear elevation of the rear axle with the body indicated by dotted lines. Fig. 4 is a front elevation of the front axle with the body indicated by dotted lines. Fig. 5 is a vertical section, on an enlarged scale, of one of the spring supporting brackets on the rear axle and connecting parts, the section being taken in the longitudinal direction of the axle. Fig. 6 is a vertical longitudinal section in line 6-6, Fig. 5. Fig. 7 is a sectional elevation, on an enlarged scale, of one end of the front head block.

Like letters of reference refer to like parts in the several figures.

A represents the front axle, B the rear axle, C the double reach, and D the fifth wheel. The latter is preferably a short-turning fifth wheel having its king bolt arranged in rear of the front axle, as shown in an application for patent filed by me of even date herewith.

E represents the side springs, F the cross bars secured to these springs and supporting the body, and G the front head block. The latter is secured with its central portion to the upper segment of the fifth wheel and has its end portions *g* turned upwardly and inwardly so as to terminate in inwardly projecting bolts or pivots *h* which stand at a considerable height above the central portion of the head block. The front ends of the side springs terminate in transverse eyes *i* in which these bolts *h* engage. Bushings *j* of leather,

or other soft material, are preferably interposed between the bolts and the eyes, to prevent rattling, and the springs are held on the bolts by washers *k* and screw nuts *k'* applied to the inner ends of the bolts.

L represents brackets which are secured by clips *l*, or otherwise, to the upper side of the rear axle. The latter, as well as the front axle, is preferably swaged or constructed with a depressed body, and these brackets rest upon the oblique portions of the axle, connecting the depressed bed with the elevated axle arms. The base *l'* of the bracket extends on both sides of the upright portion *l''* of the bracket and one of the clips is applied on each side of the upright portion, whereby a long base of the bracket and a firm connection of this base with the axle are produced. The upright portion of the bracket is provided at its upper end with an inwardly projecting pivot *m* on which the link M is hung. The lower end of this link is connected with the rear end of the adjacent side spring by a transverse pivot bolt *n*.

p represents a transverse bolt which passes through the pivot *m* formed on the bracket and holds the link on said pivot, a washer *p'* being preferably interposed between the head of the bolt and the inner side of the link. A bushing *q* of leather, or other soft material, is preferably interposed between the pivot *m* and the upper eye of the link to prevent rattling.

The body of the vehicle is hung between the elevated upper ends of the front head block and the elevated brackets on the rear axle, so that, when the body is depressed, there is sufficient space between these elevated supporting parts and the depressed bodies of the head block and of the rear axle to permit of the necessary vertical movement of the body. This permits the body to be hung comparatively low and still affords ample space below the body for its downward movement when depressed by the load or other causes.

I claim as my invention—

1. The combination with the side springs, of a rear axle, elevated brackets secured upon the rear axle, pendent links hung with their

upper ends to said bracket and connected at their lower ends to the rear ends of the side springs, and a rigid front head block provided with upwardly and inwardly turned ends to which the front ends of the side springs are attached, substantially as set forth.

2. The combination with the side springs, of a rear axle, elevated brackets secured upon the rear axle and provided at their upper ends with transverse pivots, pendent links hung with their upper ends to said pivots and connected at their lower ends to the rear ends of

the side springs, and a rigid front head block provided with upwardly and inwardly turned arms terminating in inwardly projecting bolts on which the front eyes of the side springs are supported, substantially as set forth.

Witness my hand this 28th day of March, 1893.

CHRISTOPHER C. BRADLEY.

Witnesses:

C. S. BUNNELL,
E. W. PITKIN.