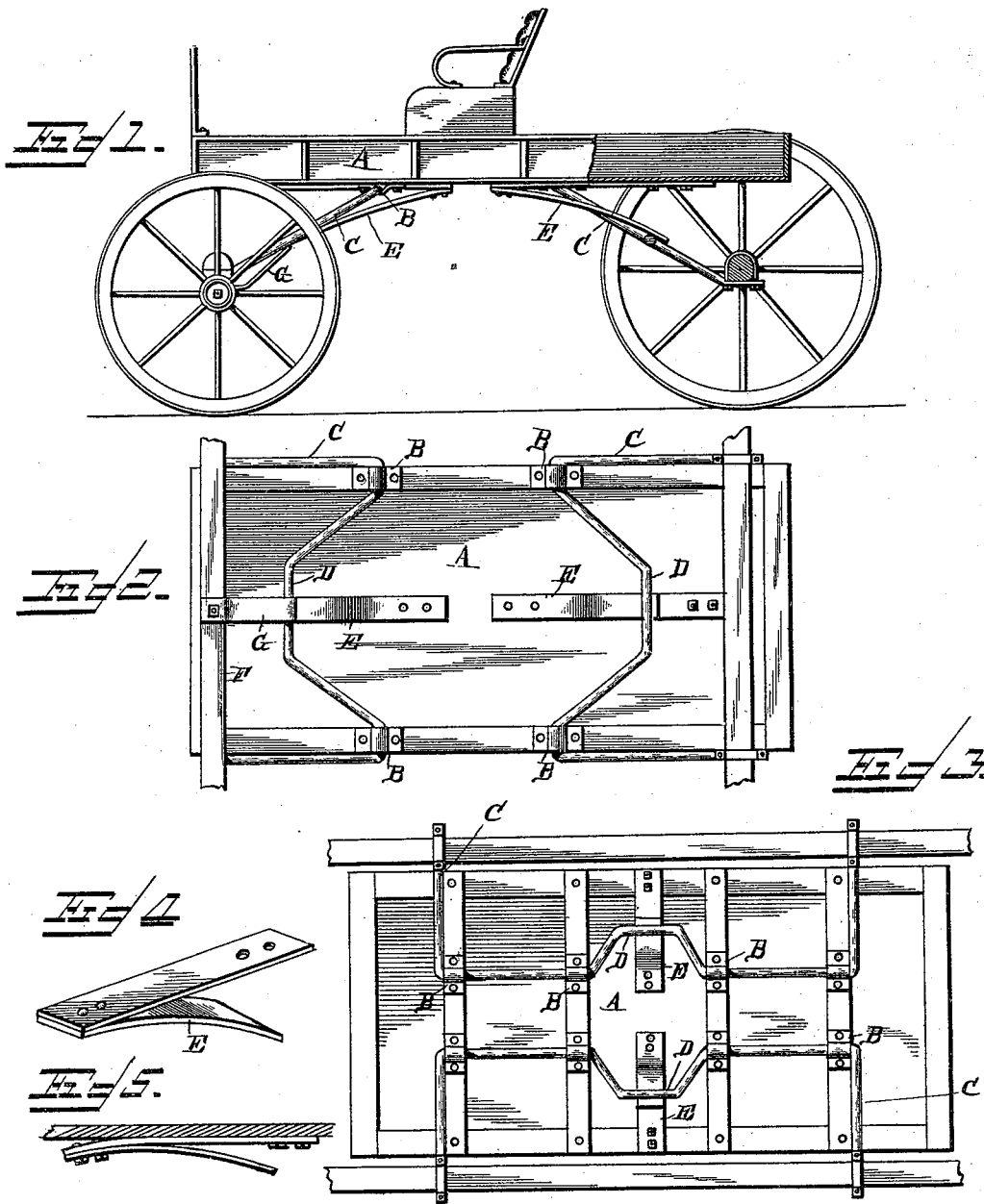


(No Model.)

C. E. PEARL.  
VEHICLE SPRING.

No. 490,677.

Patented Jan. 31, 1893.



Witnesses

W. C. Schneider.

*W. C. Schneider*

Inventor

C. E. Pearl.

By his Attorneys,

*Cash & Co.*

# UNITED STATES PATENT OFFICE.

CORODEN E. PEARL, OF NORTH BANGOR, NEW YORK.

## VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 490,677, dated January 31, 1893.

Application filed July 16, 1892. Serial No. 440,235. (No model.)

*To all whom it may concern:*

Be it known that I, CORODEN E. PEARL, a citizen of the United States, residing at North Bangor, in the county of Franklin and State of New York, have invented a new and useful Vehicle-Spring, of which the following is a specification.

My invention relates to an improvement in vehicle springs adapted for use in connection with road-carts road wagons and side-bar wagons, the object of my improvement being to prevent the rock and pitch of the springs ordinarily employed.

A further object of my invention is to provide a spring which is applicable to either of the kinds of vehicle above mentioned.

Further objects of my invention will appear hereinafter in the description, and the novel features will be particularly pointed out in the claim.

In the drawings: Figure 1 is a side view of a road wagon provided with my improved springs, partly broken away at the rear end to show the position of the springs. Fig. 2 is a bottom plan view of the same. Fig. 3 is a similar view of a side-bar vehicle provided with my improved spring. Fig. 4 is a detail view of the spring detached. Fig. 5 is a detail view of the spring, showing the position of the members thereof when the vehicle-body is depressed.

A represents the body of the vehicle shown in the drawings, to the under side of which, by means of clips or bearings B, are attached the pivoted arms C C, which lie wholly outside the plane of the sides of the body, the inner or pivoted ends thereof being connected in pairs by the transverse crank-shafts D, which are integral with the arms. The apexes of the loops in said crank-shafts are located under the center of the body and are approximately opposite and lie between the arms which they connect, the arms and the loops being in substantially the same plane.

The springs E comprise two or more leaves, the upper of which is bolted at its outer end to the under side of the body and lies, when not under stress, close to the latter at all points, and the lower of which is bolted at its rear end to the rear end of the upper leaf and diverges therefrom toward its front end, and curving slightly downward, whereby the free end of the lower member of the spring

is directly beneath and at some distance from the upper member. The downward curvature of the lower member of the spring causes the point of connection of the two members to separate slightly from the under side of the body, as the free end of the lower member is pressed toward the upper member by the depression of the body, as shown in Fig. 5, in dotted lines.

The loops of the crank-shaft engage the free ends of the lower members of the springs but are not connected thereto, thus allowing a free sliding movement between said parts as the body is depressed. The free ends of the arms, which are located at the front end of the body, are connected to the ends of the cross-bar F, and a short reach, G, which is secured at its rear end to the loop of the front crank-shaft, is engaged with the lower end of the king-bolt by which the front axle is pivotally connected to the said cross-bar. The arms at the rear end are connected to the rear axle.

By reference to Fig. 3, it will be seen that all the parts of my improvement can be used in connection with side-bar vehicles without change of construction or arrangement with the exception that the free ends of the pivoted arms are connected to the side-bars instead of being connected to the axle.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

The combination with a vehicle body and running gear, of a cranked-shaft, mounted in bearings upon the under side of the body and provided with arms whose extremities are fixed to the running gear, and the leaf spring, composed of two or more leaves, which leaves are secured together at one end and diverge toward their free ends, one of said free ends being secured to the body and the other being engaged by the crank of the said shaft, which slides freely upon the surface thereof, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CORODEN E. PEARL.

Witnesses:

WM. B. STEINBIRGE,  
A. E. RUSSELL.