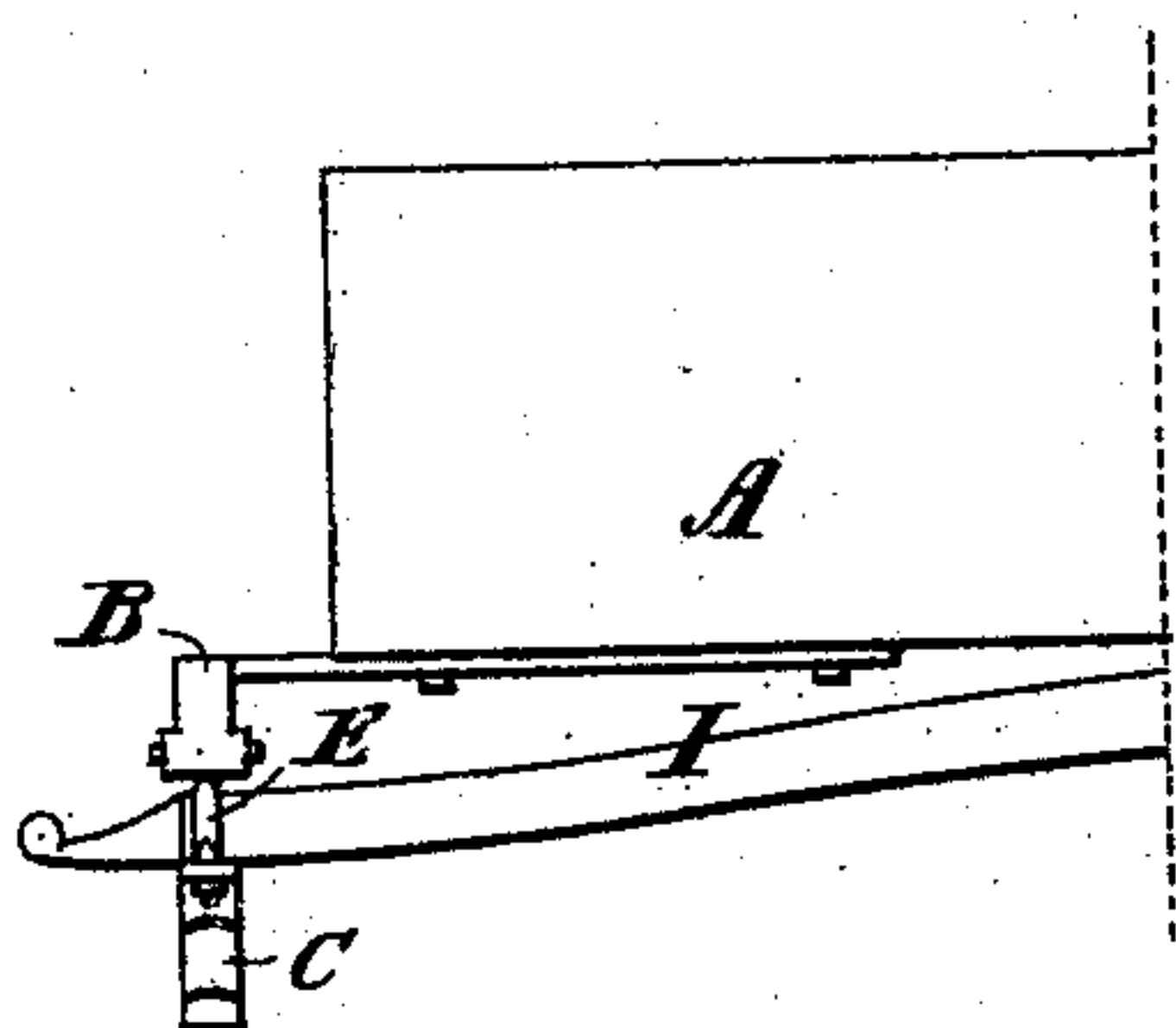
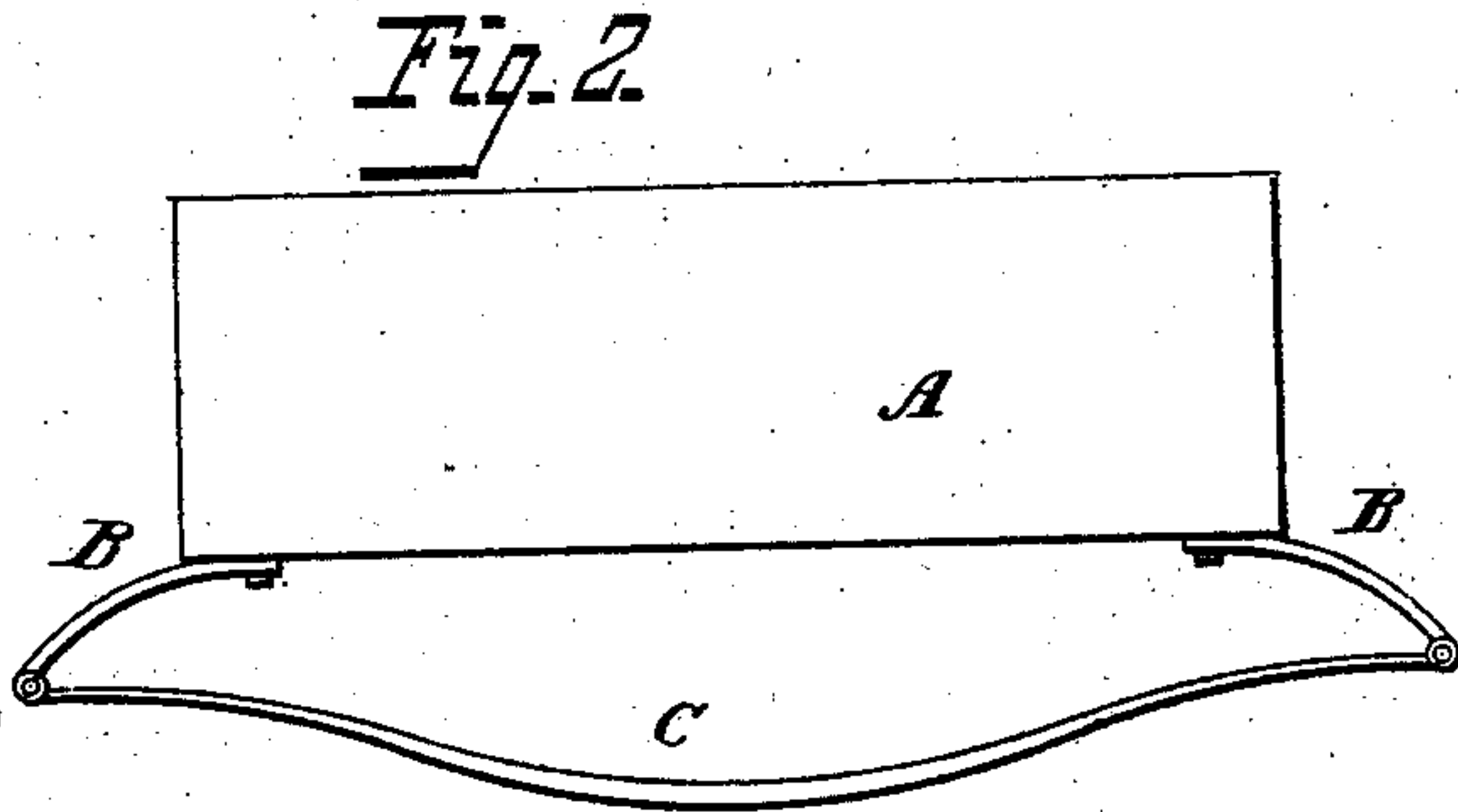
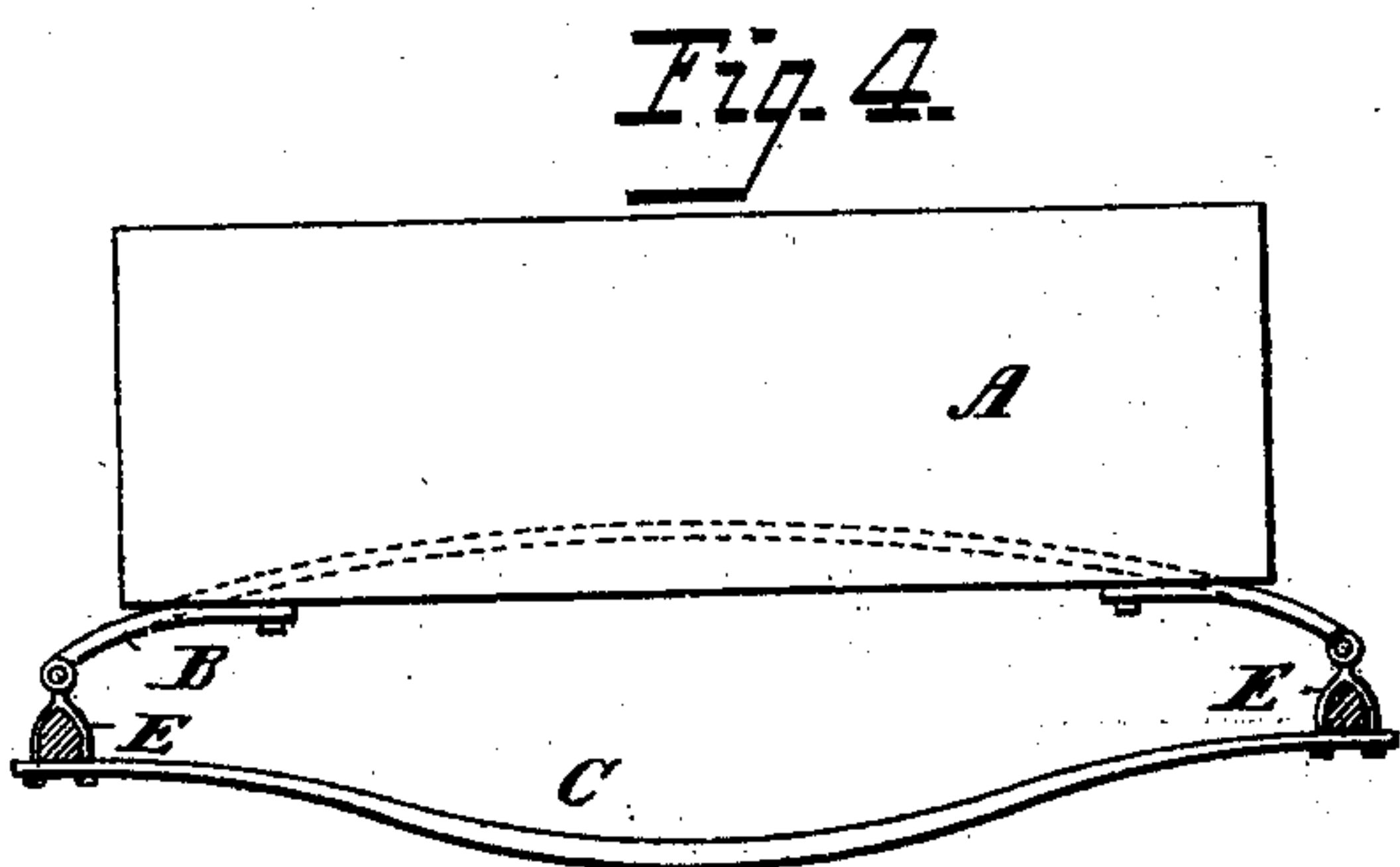
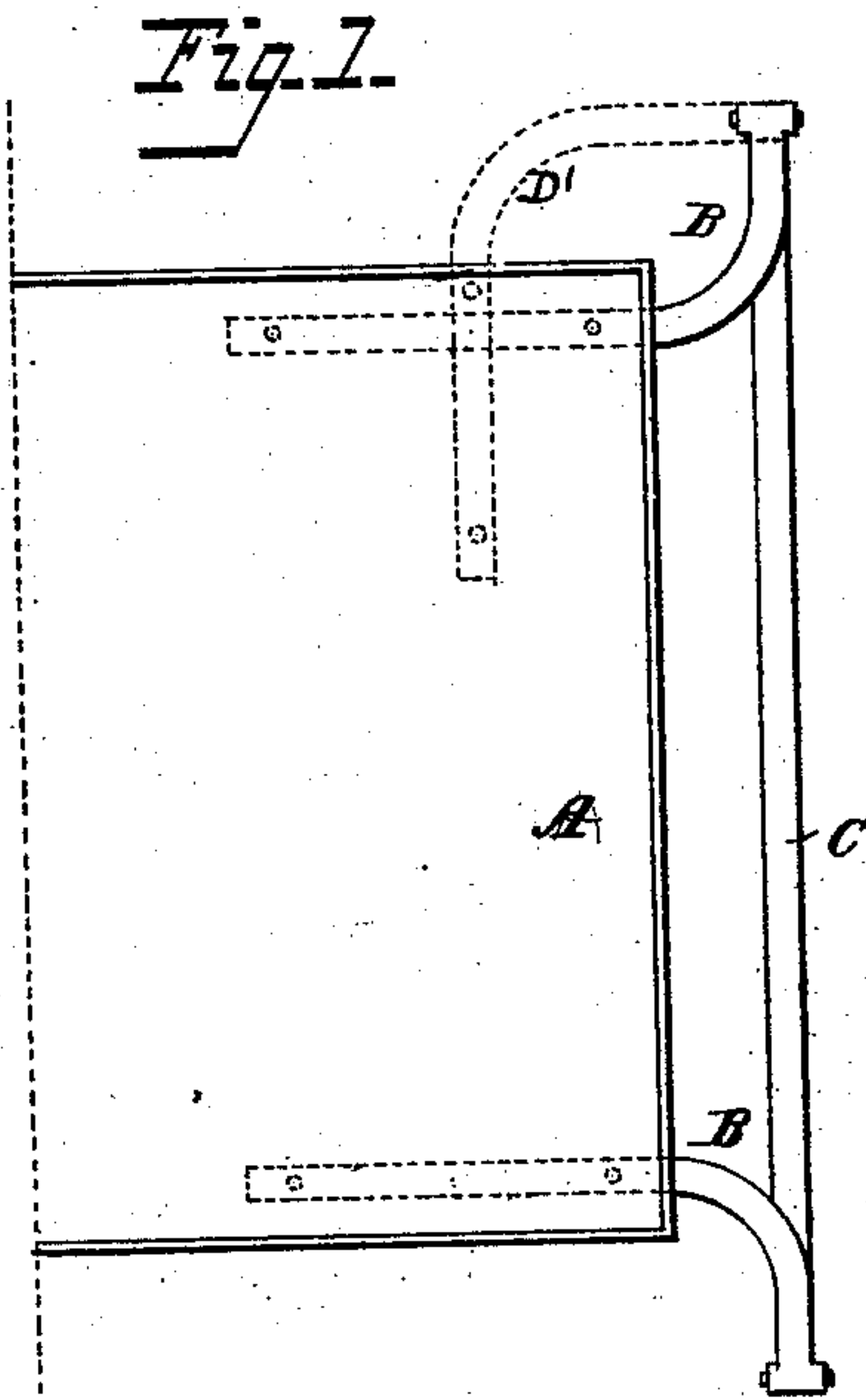
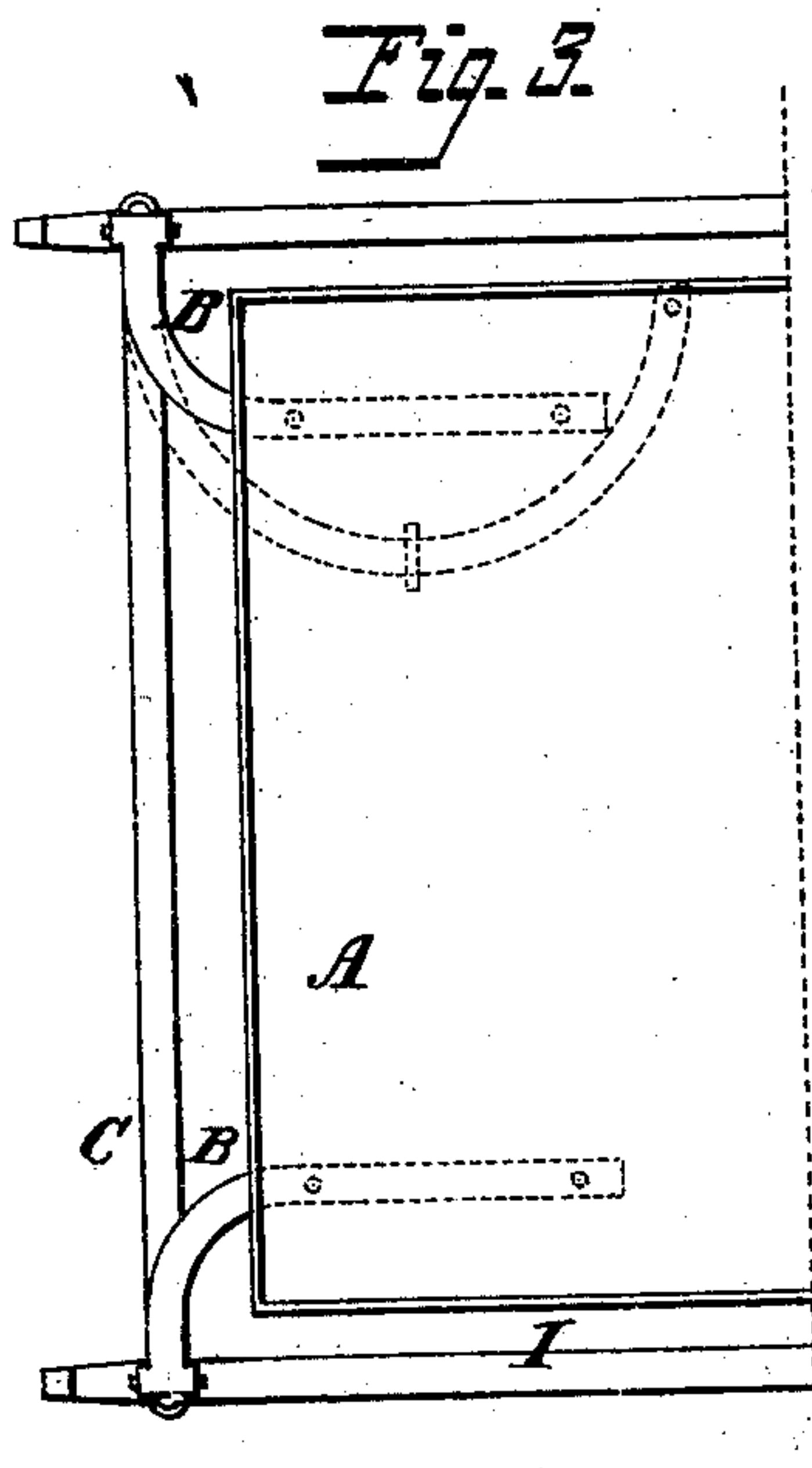


(No Model.)

C. W. SALADEE.
VEHICLE.

No. 272,331.

Patented Feb. 13, 1883.



Attest:

Courtney A. Cooper

H. E. Hannemann

Inventor:

C. W. Saladee

*By his atty,
Charles D. Foster*

UNITED STATES PATENT OFFICE.

CYRUS W. SALADEE, OF TORRINGTON, CONNECTICUT.

VEHICLE.

SPECIFICATION forming part of Letters Patent No. 272,331, dated February 13, 1883.

Application filed June 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, CYRUS W. SALADEE, a citizen of the United States, and a resident of Torrington, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Vehicles, of which the following is a specification.

My invention relates to an improved spring-support for vehicle-bodies; and it consists of springs having their inner ends secured to the bottom of the body, and extended and united to the frame or platform of the running-gear at points beyond the body, whereby to secure increased length of spring, a correspondingly greater degree of motion to the body, and admitting of carrying the body as low as desirable for convenience in getting in and out, as well as to secure lightness in weight and improve the general appearance without any sacrifice of strength.

My invention further consists in interposing the opposite ends of the side bars between the outer ends of the end supporting-springs, placed one above the other, to relieve the side bars from the direct weight of the body, and thus admit of making them much lighter and more sightly in appearance than if the body were suspended from the bars, as usual.

In the drawings, Figure 1 is a plan view of the rear half of a vehicle, showing my improvement. Fig. 2 is an end elevation of Fig. 1. Fig. 3 is a plan of the front of the vehicle, showing a modification. Fig. 4 is an end elevation of Fig. 3, and Fig. 5 is a side elevation of Fig. 4.

A represents the body; C, a semi-elliptic spring, clipped in the usual way to the axle or head-block.

B B are curved upper springs, having their inner ends attached to the bottom of the body, near the corners, and their outer ends united with the ends of the long spring C in any of the well-known ways, to secure a hinge or shackle-joint whereby to admit of the free action of the springs at their junctions. The lower spring, C, is flexible in its action, while the body-springs B B are both torsional and flexible in their action when in motion, under the weight of the body. The springs B B may, if desired, be L-shaped or curved, and may be attached to the body and end of the

lower spring in a reverse position, as seen in dotted lines D', Fig. 1.

It will be seen that by this application of the springs B B, extended beyond both the ends and the sides of the body, greater length may be given to the lower spring, C, and thus a greater degree of motion is permitted, and increased spring-platform or length of flexion and torsional surface is likewise secured to them.

It is not absolutely necessary to use the springs B B in combination with the lower spring, C, as the springs B may be united at their outer ends to the side bars or frame of the gear at such remote points from each other as to secure all requisite motion without the use of any additional springs.

In Figs. 3, 4, and 5, I show the application of the springs to a "side-bar wagon," the ends of the side bar, I, being secured between the outer ends of the springs B and C.

A clip, E, surrounds and clasps the end of the side bar firmly down upon the end of the spring C, while the top of the clip E has a head or shackle formed thereon, whereby to secure a joint-connection with the outer end of the spring B. The side bar is thus secured at its extreme ends between the springs, while its intermediate portion is less free of the weight of the body. Bars lighter in weight than those usually required may thus be used.

Where it is desired to hang the body low down between the side bars, the outer ends of the springs B B may be arranged to operate below the side bars, immediately inside the ends of the springs C.

In securing the ends of the side bars between the outer ends of the supporting-springs I am not limited to the use of the upper springs, B, as shown, but may substitute for the latter a semi-elliptic spring, as indicated by dotted lines, Fig. 4, and I may, by means of the usual spring-bar and "body-loop," connect the spring to the body.

I do not claim the use of springs projecting beyond the sides of the body, as this is common; but

I claim—

1. A spring-support for vehicle-bodies, consisting of laterally-curved springs having their inner ends attached to the bottom of the body.

and extended from the corners and united to the frame or platform of the running-gear at points beyond both the ends and sides of the body, substantially as and for the purpose set
5 forth.

2. A side-bar road-wagon in which the opposite ends of the side bars are interposed between the outer ends of the platform-springs, arranged on the frame, and springs attached
10 to the body, and all secured by a single con-

nection at each corner, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CYRUS W. SALADEE.

Witnesses:

C. L. MCNEIL,
ISAAC W. BROOKS.