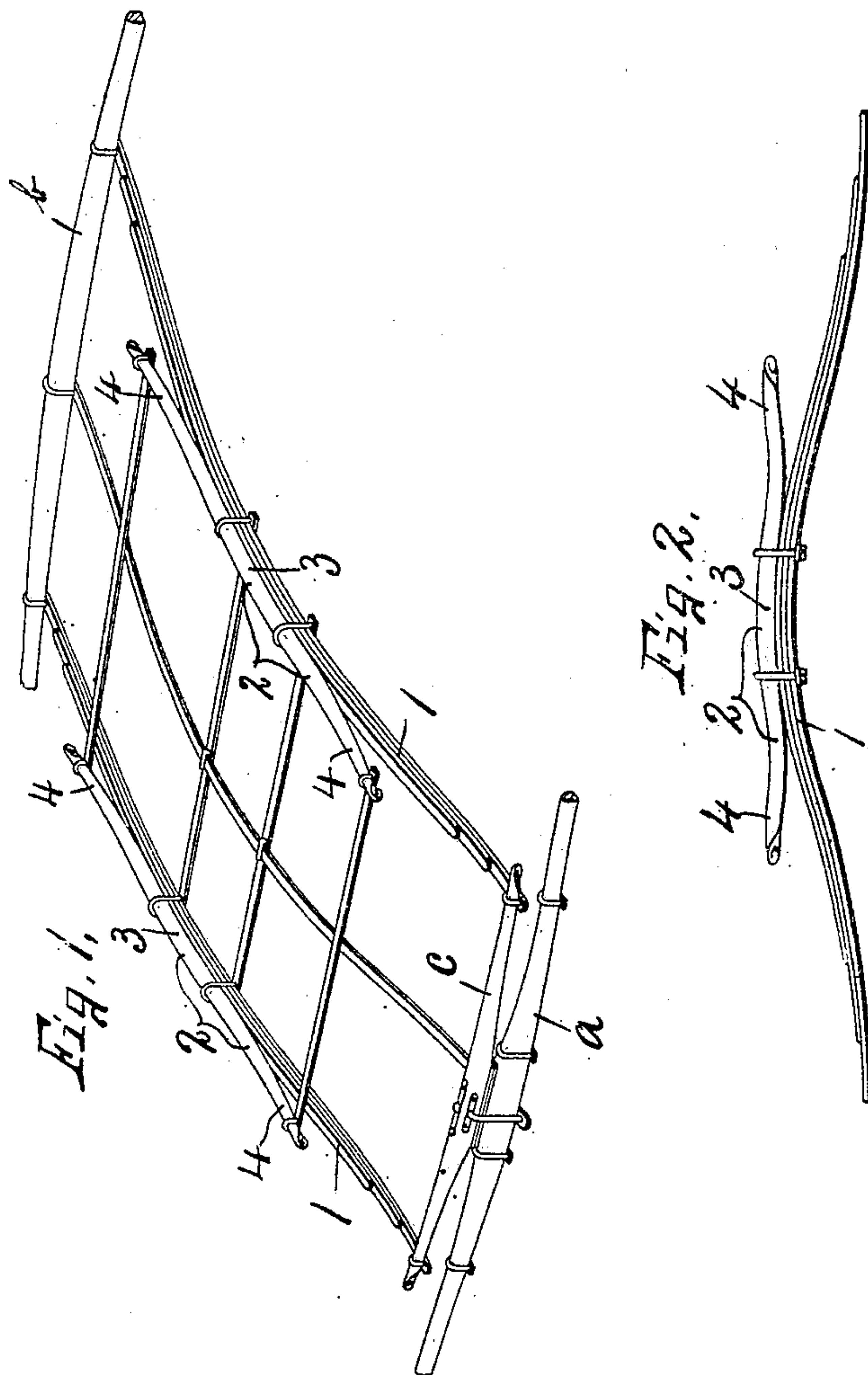


No. 838,956.

PATENTED DEC. 18, 1906.

F. G. DAVIS.
SPRING PLATFORM FOR VEHICLES.
APPLICATION FILED DEC. 6, 1904.



WITNESSES:

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SPRING-PLATFORM FOR VEHICLES.

No. 838,956.

Specification of Letters Patent.

Patented Dec. 18, 1906

Application filed December 5, 1904. Serial No. 235,480.

To all whom it may concern:

Be it known that I, FRANCIS G. DAVIS, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Spring-Platforms for Vehicles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in spring-platforms for vehicles, and refers more particularly to side-spring platforms in which a pair of parallel side springs span the distance between and are secured to the front bolster and rear axle of the vehicle for supporting a wagon-body. These side springs are usually arched upwardly at their longitudinal centers, upon which are mounted suitable side bars having their longitudinal centers secured to the springs and their ends equipped with suitable means for supporting a vehicle-body. The bearing-surfaces of the side bars upon the springs usually terminate abruptly at the ends, either at right angles or at an acute angle with the adjacent face of the spring, and I have discovered that the strain on the springs and their tendency to crystallization and breakage is most severe and more frequent at these points owing to the fact that here the vibrations or yield of the springs are brought to a sudden termination.

My object therefore is to avoid this abrupt ending of the bearings between the bars and springs by making the lower bearing-face of each bar continuous and curved longitudinally at the ends, so as to establish a rolling contact with the adjacent face of the spring as the latter is compressed.

In the drawings, Figure 1 is a perspective view of a spring-platform embodying the features of my invention. Fig. 2 is a side view of one of the side springs and its side bar mounted thereon.

a and *b* represent the front and rear axles of a vehicle, and *c* is a bolster which is connected to the front axle by a suitable king-bolt and fifth-wheel sections.

1 1 are parallel side springs having their front ends secured to the ends of the bol-

ster and their rear ends secured to the rear axle *b*. These springs 1 are somewhat semi-elliptical in form, with their ends slightly flattened or curved longitudinally toward a straight line and their central portions arched upwardly, so that the central and each end portion form a compound curve.

Mounted upon and secured to the top faces of the springs 1 are lengthwise side bars 2, having an upwardly-arched central portion 3 and ends 4, which form compound curves with the central portion 3—that is, the ends of the side bars are curved upwardly from their central portions, so that the lower faces of the ends of the bars form compound curves with the central portions and constitute rocker-bearings for the contiguous faces of the springs. It is now evident that as the load upon the platform is increased or diminished or shifts from one position to another the contiguous faces of the springs and their side bars roll or rock upon each other, thereby continually changing the extreme front and rear bearing-points and affording a more even distribution of the load along the spring. For example, suppose a dead-load to be applied to the bars 2. Then the central arch of the springs 1 would be more or less depressed or straightened, thereby lengthening the bearing-surfaces between the springs and bars and distributing the load over a greater length of the springs. As the load is drawn over more or less rough pavements, the pressure on the springs and consequently the bearing-points between the springs and bars are continually changing, and therefore the neutral point of vibration is not confined to any particular part of the spring, and the liability of crystallization is reduced to a minimum.

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

In combination with the front and rear axles of a vehicle, a bolster mounted on said front axle, continuous, longitudinally-disposed laminated steel springs securing said bolster and rear axle together, said springs being arched in their central portion, and

rigid side bars adapted to connect said
springs and a wagon-body, said side bars so
hollowed out as to conform with the curva-
ture of the springs, and having reversely-
5 curved lower end surfaces adapted to con-
form to the different positions of said
springs under torsion.

In witness whereof I have hereunto set
my hand this 28th day of November, 1904.

FRANCIS G. DAVIS.

Witnesses:

W. H. HATHWAY,
GEO. W. ADAMS.