W. W. SAYERS.

VEHICLE-SPRING.

No. 186,883. Patented Jan. 30, 1877.

Fig. 1.

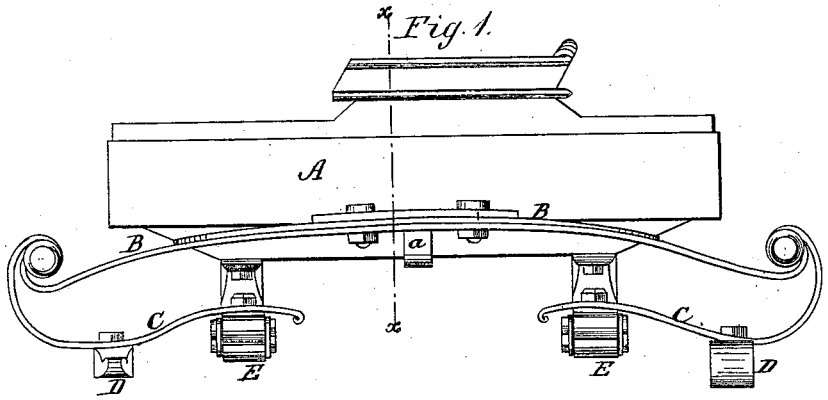
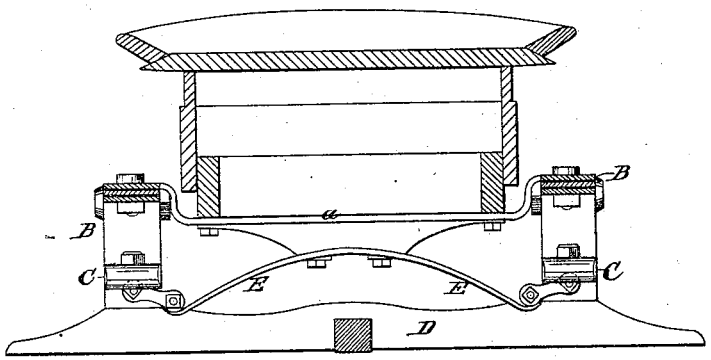


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM W. SAYERS, OF HARRODSBURG, KENTUCKY.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **186,883**, dated January 30, 1877; application filed January 6, 1877.

To all whom it may concern:

Be it known that I, WILLIAM WALKER SAYERS, of Harrodsburg, in the county of Mercer and State of Kentucky, have invented a new and useful Improvement in Vehicle-Springs; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of the invention is to provide, for buggies, top-carriages, or other light vehicles, a spring which shall be superior in point of elasticity, lightness, strength, and durability, and also adapted to prevent rocking motion of the body of the vehicle.

The invention relates chiefly to the use of end cross-springs, which are connected with the brackets or scroll-springs that support the side springs of the body.

In the accompanying drawing, forming part of this specification, Figure 1 is a side elevation. Fig. 2 is a vertical section through line *x x*, Fig. 1.

The body A of the vehicle is shown attached to the elliptical side springs B by means of a transverse bar, *a;* but it may be also attached in the usual way—to wit, by screw-bolts passing through the sills. The said side springs B are supported by scroll-shaped brackets or springs C, which are bolted to the front and rear bolsters D. The ends of the body A are attached to elliptical cross-springs E, which are supported from the inner ends of the said scroll-springs C. The springs B are thus arranged parallel to the sides of the vehicle-body A, and also to the extended inner ends of the scroll-spring C, while the cross-springs E have a position parallel to the bolsters D, but at right angles to the side springs B.

I have found by experiment that this form of spring is stronger than the ordinary side elliptic spring of the same weight, and also that it equalizes the application of the load or weight, and prevents the rocking motion of the body of the vehicle either laterally or longitudinally. These advantages result mainly from the use of the cross-springs and the manner in which they are connected with the scroll-springs.

I have thus practically a platform-spring, the body A being supported at four different points, and the strain distributed correspondingly.

What I claim is—

In combination with the vehicle-body and scroll and side springs, the cross-springs E, attached to the body and scroll-springs, as shown and described.

WILLIAM W. SAYERS.

Witnesses:

J. Q. MARINNER,

R. N. SCOTT.