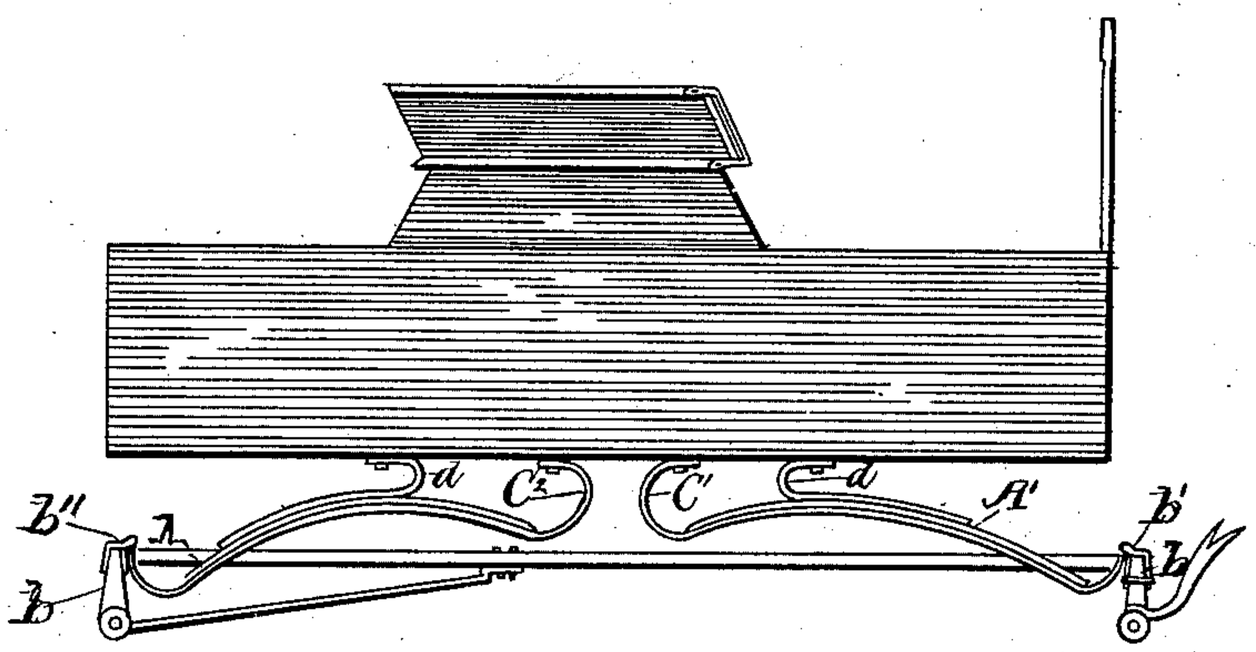
(No Model.)

W. H. McDANIEL, U. PERRINE & F. S. PECK.

VEHICLE SPRING.

No. 280,204. Patented June 26, 1883.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. McDANIEL, UPTON PERRINE, AND FRANK S. PECK, OF WICHITA, KANSAS.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 280,204, dated June 26, 1883.

Application filed April 10, 1883. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. McDANIEL, UPTON PERRINE, and FRANK S. PECK, citizens of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Vehicle-Springs, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to an improvement in vehicle-springs, whereby an equalization of pressure upon the springs is attained by distribution of the bearing-points of the springs in connection with the vehicle-body; and it consists, substantially, in the combination and arrangement of parts, as hereinafter more fully specified.

In the accompanying drawing, the figure is a side elevation embodying our improvement.

In the drawing, the semi-elliptical springs A and A′ are arranged, as shown, on each side of the vehicle-body, the front spring being fastened to bolster *b* by a clip, *b′*, and, extending back, is turned up at end C′ and bolted to the vehicle-body. The rear spring, A, is in like manner fastened to axle by a clip, *b″*, and extended forward and turned up at point C^2 and bolted to the body. These springs have rigidly secured thereto, on the upper face thereof, the auxiliary springs *d d*, which project in a curve from said springs, and are bolted at their upper end to the vehicle-body, as shown.

Thus constructed it will be observed that the weight of the vehicle is received at different points, while the bearing of the semi-elliptical springs is wholly confined to one point on the bolsters, and that the extent of the leverage to which the springs are subjected is lessened by the intervention of the auxiliary springs *d*, thus rendering the semi-elliptical springs less liable to breakage. Each semi-elliptical spring and its auxiliary spring therefore not only tend to diffuse the pressure over a greater surface and to lessen the extent of leverage, and thus to decrease the strain upon the semi-elliptical springs, but as each pair of springs has the same ultimate bearings (the semi-elliptical springs bearing the auxiliary springs being clipped to the bolsters) the elastic action of the springs is coincident, and hence the motion of the vehicle is thus rendered more harmonious. Besides, the auxiliary springs, as applied to the semi-elliptical springs, tend to strengthen and stiffen the former.

We are aware that compound vehicle-springs are not broadly new, the same being shown in the patents of J. R. Locke, of October 6, 1868, No. 82,727, and John Faussett, of January 16, 1872, No. 122,820.

What we claim, and desire to secure by Letters Patent, is—

The combination of the semi-elliptical springs A A′, secured by clips *b′ b″*, and auxiliary springs *d*, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM HENRY McDANIEL.
UPTON PERRINE.
FRANK STEVENS PECK.

Witnesses:
DAN. W. COOPER,
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