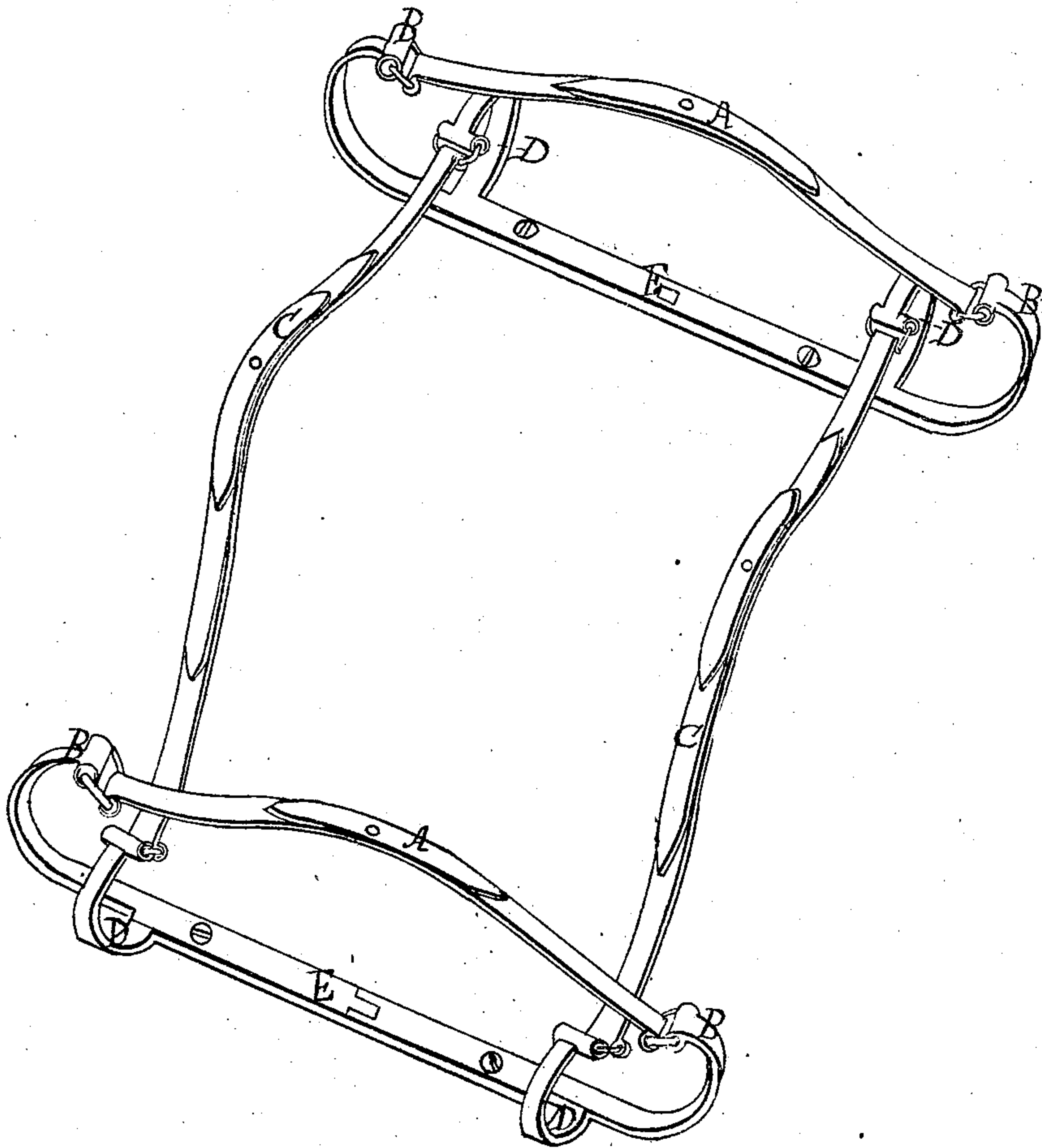


*C. Atherton.*  
*Carriage Spring*  
*N<sup>o</sup> 81,327. Patented Aug. 25, 1868.*



*Witnesses.*

*H. F. Everts*  
*Louis C. Hyde.*

*Inventor.*

*C. Atherton*  
*Per a Power*  
*Thos. S. Sprague*

*The drawing in this patent  
is not in print.*

**United States Patent Office.**

CALVIN ATHERTON, OF WALES, MICHIGAN.

*Letters Patent No. 81,327, dated August 25, 1868.*

**IMPROVEMENT IN WAGON-SPRINGS.**

*The Schedule referred to in these Letters Patent and making part of the same.*

**TO WHOM IT MAY CONCERN:**

Be it known that I, CALVIN ATHERTON, of Wales, in the county of St. Clair, and State of Michigan, have invented a new and useful Improvement in Arrangement of Wagon-Springs; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

The nature of this invention is so to arrange semi-elliptic springs, of ordinary construction, in such a manner as to prevent the surging of a carriage or wagon-body in any direction, and also to keep said body in a more level position than is usually the case when the superincumbent weight is unequally distributed, and, by means of using lighter springs, to obtain more flexibility with less danger of breaking.

The invention consists in attaching the semi-elliptic springs A, parallel with each other, suspended from proper curved jacks B, and other semi-elliptic springs C, parallel with each other, and at right angles with the spring A, also hung from similar curved jacks D, all the jacks springing from bars E, which may be attached to the rear axle of a wagon, and the forward bolster by any known and convenient device.

By this arrangement, I am able to use much lighter springs, produce greater flexibility, with less danger of breaking the springs, and to sustain the box of the wagon in a more level position.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the semi-elliptic springs A and C, in connection with the jacks B and D, and the running-gear of any wagon or carriage, substantially as herein set forth.

CALVIN ATHERTON.

Witnesses:

H. F. EBERTS,

LEWIS L. GORDON.